

# CAMPING IN CRETE

BY

A. TREVOR - BATTYE

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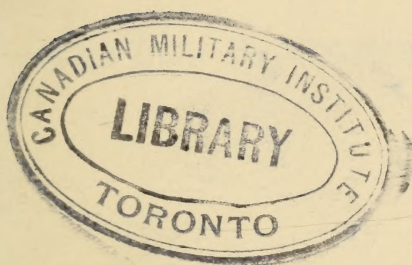
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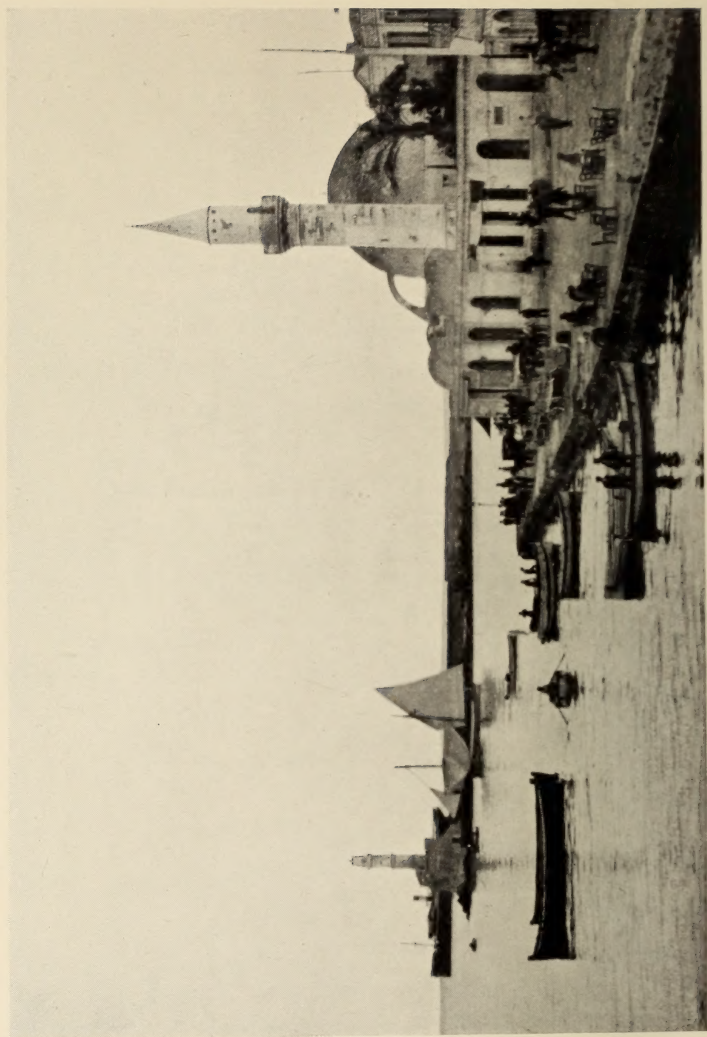
**CAMPING IN CRETE.**





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CANEA : EAST SIDE OF THE HARBOUR.

[Frontispiece.

# CAMPING IN CRETE

WITH NOTES UPON THE ANIMAL  
AND PLANT LIFE OF THE ISLAND

BY

AUBYN TREVOR-BATTYE

M.A., F.L.S., F.Z.S., F.R.G.S., etc.

*Including a Description of certain Caves and their Ancient Deposits*

By DOROTHEA M. A. BATE, M.B.O.U.

WITH THIRTY-TWO PLATES AND A MAP

374435  
12. 1. 40

WITHERBY & CO.

326 HIGH HOLBORN, LONDON

1913





TO

R. W. T-B.

AND

E. C. R. T-B.



## PREFACE.

“SO YOU are back from Cyprus ! ” was commonly my greeting each time I returned from Crete ; but in consequence of the Balkan War the identity of this island is now, no doubt, more generally familiar. Crete, though it lies so near the course of eastward-sailing vessels that its snowy summits may be seen from the decks of the liners, is awkward to get at, and is seldom visited by English people. Some day Crete will be “discovered.” Meanwhile there it lies, thought of but little unless by Foreign Ministers and archæologists. To both of these it is a place of much concern ; to the one it has long been a veritable nightmare, to the other it is a second Troy. And yet this book touches neither upon politics nor excavation.

The politics of Crete are a sad subject. After all her rending tragedies this poor isle of contention did at least come to rest during the Concert of the Powers ; that really seemed for her the dawn of a time of recovery, her first real chance ; then at least she could call her soul her own. And now she has realised a fatuous aspiration, and dreams she will be happy in the arms of Greece.



Taxes, if nothing worse, will soon dispel that dream.

Cretan excavations, again, described as these have been by those who made them, are better left alone by a writer who only knows what others have told him and knows it very imperfectly.

Now, among writings on Crete is none that gives, or is designed to give, a clear impression of the appearance and "feel" of the island, and the present book is an attempt to make that omission good. Invasions, occupations, civilizations, dynasties lie, then, outside the scope of this endeavour; these have passed away, but the scene of their story is, in its main features, the same to-day. Here is a peninsula where anciently was an island, here is a cornfield where once a harbour lay, but the same mountains look on Knossos that saw the first uprisings of its palace between four and five thousand years ago, or shadowed the homes of neolithic man more than ten thousand years perhaps before the birth of Christ. The mountain-sides were no doubt covered with those pine and ilex forests that remain, though sadly thinned to-day: the same flowers bloomed on Ida's summit, the same birds made musical the groves, and, though Crete has lost its deer (their horns were found in Knossos), the deer seen engraved on coins and ancient gems, it still has its ibex or *agrimia*, the descendants of those figured on

the mosaic plaques of the palace of King Minos.

A modern traveller has the advantage of the camera, and so I am led to hope that where I fail in description the photographs may help me out. Five of these I did not take: they are by Diamantopolos of Canea, and Benhadin of Candia.

Crete, as perhaps will be gathered from these pages, is something like Sicily, but greener and full of waters—as beautiful as Corfu without that island's exotic note. Crete exercises a distinctive fascination over all who stay there, and it is hard to say to what this is exactly due. It lies perhaps not only in the sheer beauty of the island and in the sense of its golden and mysterious past, but in something always about one that the word "atmosphere" only half expresses, an influence—circumambient, elusive—that makes it seem in some sort an enchanted land.

My object in these pages is a very simple one; it is to picture the scenery and natural features of the island, and to lead the reader to go to Crete.

To Miss Dorothea Bate, whose scientific work in the caves of Crete is so well known, I should like to express here my sense of her kindness in having contributed to the pages of this book.

I am greatly indebted to a friend, Mr. W. H. A. Cowell, for kindly having read the proofs of the journeys.

I take this opportunity of recording my thanks to Mr. Joseph Wright, F.G.S., for his kindness in determining Foraminifera from the marine clays near Goniá, and my admiration for his patient and most beautiful work in preparing the specimens.

Further, I must thank Dr. Otto Stapf, F.R.S., for access to the Kew Herbarium and for his great help with the dried plants.

AUBYN TREVOR-BATTYE,  
Ashford Chace,  
Petersfield,  
Hants.

*October, 1913.*



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A Map of Crete is folded in at the end of the book.



## INTRODUCTION.

Two old leather-bound works bearing upon Crete are particularly delightful reading. In the year 1555 Pierre Belon published the second edition of his *Observations de plusieurs Singularitez*. In this book he not only speaks of the Cretan ibex "which run in troops" and gives a drawing of the animal, but also figures and describes a wild sheep which "the shepherds call Strepsicheros." It was "quite white" in colour and had straight horns, spirally grooved. Further, he tells of a bird, "larger than a capon," as being often seen in the forests of the high mountains. This bird appears, from his description, to have been the Capercaillie.

A second book not less attractive is *Voyage du Levant*, which may either be read in the original French or in John Ozell's quaint translation (3 vols.), published in 1741. Its author, the celebrated French botanist Joseph Pitton de Tournefort, had been sent into the Mediterranean for "Curious Discoveries" in the year 1669 by his patron Louis XIV.

Another work that must inevitably be consulted is *Travels in Crete*, by Robert Pashley, published in 1837.

It is impossible to over-estimate the value of the work done in Crete by Pashley in the year 1834. It must be borne in mind that at that time most of the ancient sites were undetermined. The clue to many of them rested upon allusions, often very obscure, made by writers of the Roman period, long after the golden age—the age of “the hundred cities of Crete”—had passed away; and even the references in Strabo’s writings, though their author lived much in Crete, and though more reliable than any others, were based in part upon guesswork. Pashley determined or confirmed the sites of Aptera, Lappa, Eleutherna, Axos, Biennos, Praesos, Phalasarna and other ancient settlements, and was the first of the moderns to visit the cave of Zeus on Iuktás. “I now stand on the spot,” he says triumphantly, “in which Zeus was supposed to be at rest from all celestial and terrestrial cares, and which was so celebrated during many ages!”\* Pashley’s erudition and scholarship were wide and exact. For the zoologist, too, his name should always have a distinct interest, because it was from his specimens of the horns that the Cretan wild-goat, or *agrimi*, was first determined to be not the ibex of the Alps and Pyrenees but the *capra aegagrus* of Pallas; possibly the ancestor of the tame goat of Europe.

Thirty years later (1865) Captain (afterwards Admiral) T. A. B. Spratt wrote his book *Travels and Researches in Crete*, the outcome of

\* *Travels in Crete*, I 213.

an appointment on the Mediterranean Marine Survey. His "Charts" of Crete had gone far beyond the ordinary requirements of nautical work; they amounted to a trigonometrical survey of the whole island, with the place-names and the sites of ancient cities. Indeed, Captain Spratt's knowledge and ingenuity established the position of more than one ancient harbour and settlement whose identity had been till then unknown, and in some instances he was able to set Pashley right. Every subsequent map of Crete has virtually been an appropriation of Spratt's map. His attainments as a geologist and his accuracy of study were such that in its main features his work left little to be done. His name will always be inseparably associated with his work in Crete.

One more name remains to be added to those of this period, that of the distinguished French man of science Victor Raulin, who travelled in Crete from May to December, 1845. His excursions in the island were very extensive, and he has left us a record of his work in three volumes, two of text and one of plates, published in Paris in 1869 under the name of *Description Physique de l'Ile de Crète*. He was Professor of Science in Bordeaux. Alike in geology and in botany his work stands out from that of all other writers, not only in its comprehensiveness and scientific arrangement, but in the general attractiveness of its style.

For that which has been more recently written



concerning excavations and their discoveries of pre-Roman Crete (it has grown into a literature since Sir Arthur Evans began his work) the student will search the *Annual of the British School at Athens*, the *Journal of Hellenic Studies*, with the publications of other learned societies at home and abroad. He will find a summary of the position in 1907 in Professor Burrow's *The Discoveries in Crete*, published in that year, but will remember that things move quickly in discovery work, and that what seemed assured but yesterday may not be even reasonable hypothesis to-morrow. Sir Arthur Evans' delightful letter in the *Times* (September 16, 1910) about his work on the Little Palace will not be overlooked.

The work of the Venetians in the island has been described and finely illustrated by Dr. Guiseppe Gerola in a stately monograph *Monumenti Veneti dell' isola de Creta*, published in 1906, *et seq.*: (Venetian Institute).

Lastly, ethnological matters have (1909) been debated in an excellent little book by Professor C. H. Hawes and Mrs. Hawes (who as Miss Boyd unearthed the city of Gournia) called *Crete, the Forerunner of Greece*.

The Blue Books about events in 1897, the deportation of the Turkish army, the conditions

Note. — The following works may also be consulted: Cramer's *Description of Ancient Crete*, Sieber the botanist's *Reise nach der insel Kreta*, Olivier's *Voyage dans l'Empire Othoman*, Dapper's *Description exacte des Isles de l'Archipel*, Neumann's *Rerum Creticarum Specimen*, Pococke's *Description of the East*, Hoeck's *Kreta* and Hogarth's *Accidents of an Antiquary's Life*, and Baikie's *Sea Kings of Crete*.



under Prince George of Greece and the later constitution under the Protecting Powers are well worth reading.

The question of the spelling of the proper names has been a difficult one. Clearly there are two alternatives—either to follow the Greek spelling and use the corresponding English vowels, or to use certain Italian vowels as the equivalent of certain sounds. Both of these methods are open to objection, but the latter seems the better of the two. Surely a book of travel in any given country gains in usefulness if it can by any means give the chance visitor to the same country an idea of the sound of names as he will hear them spoken, and as he himself must speak them if he is to be understood. The Latin countries of the Mediterranean being those they most often frequent, the great majority of English travellers are used to the Italian-sounded vowels. Were we therefore, say, to transliterate  $\Lambda\alpha\sigma\tilde{\eta}\theta\iota$  by *Lasethi* the tendency would be to pronounce this “*Lasathi*,” whereas *Lasithi* exactly conveys the sound of the Greek word.

B, D and U are traps for the unwary—the scholars will tell us why these things are so; at any rate we have written *Vouno* for *Bouno* (*Βουνόν*), *Arkadhi* for *Arkardi*, and had we spoken of the White Mountains under their old name of *Leuká*, we might have “spelt it with a v.”

Then there is the Doric change of the liquids “l” and “r” the dropping of the final “s” (*Lakko*

for Lakkos), and finally the matter of accents. It seemed that it might be useful to put in these where they were of importance in the pronunciation.

Again, in a land that has been subject to so many masters, names have either been entirely changed and re-changed, or else have been twisted—now from Saracenic to Italian, now from that to Turkish, and again from the others to Greek. Thus Khandax became with the Venetians Candia, while this in turn has given place in popular speech to Megálo-Kastron, though in formal style it is spoken of as Heráklion, a survival possibly from Herákliá, and if so, then from the oldest name of all. When all is said, the spelling in this book is not consistent, for it has necessarily been a matter of compromise. The endeavour has been to be usefully accurate without being pedantic.

But if, even when one knows the origin of a modern Cretan name, the question of spelling is not clear, it is still less so when one does not know. The largest gulf on the northern coast of Crete is called, in the Greek, Merambellos (Μεραμβέλλος); this at the hands of some writers becomes Mirabello—a well-known Italian surname—at the hands of others (Spratt) Mirabella, while a German (Kiepert) writes it Merabelo. Here either Italian name seems so familiar that the writer has not dared to use the Greek, but has followed Spratt.

The matter is not made easier by the fact that the Cretans themselves are not always sure of their own names. One of their principal towns

anciently called Rhithymna or Rhithymnia, is known indifferently as Rhethymni, Rhethymnos or Rhethemnos.\* Here we have slipped out of an invidious selection by using Retimo, the Italian name.

I have followed former English books in speaking of the "White" Mountains; this was their old and is their present name.† Sometimes they are spoken of as the Sphakian Mountains.‡

Such are some of the difficulties for which a poor traveller, who is no philologist, asks his reader's patience.

\* Ἡ πόλις Ῥεθύμνη ἢ Ῥέθυμνος καὶ Ῥέθεμνος N. Stavraki in Στατιστικὴ τοῦ πληθυσμοῦ τῆς Κρήτης (Athens, 1890). A most useful book; from it I have taken the spellings of Cretan names.

† Λευκὰ ὄρη, Strabo; τὰ ἄσπρα βουνὰ, modern.

‡ τὰ Σφακιανὰ βουνὰ.





PART I.



## DAYS NEAR CANEA.

I HAVE met people who, having touched at Canea, say that they really saw nothing of the island, because they were only there for a week; yet no town is better placed than Canea for a faithful first impression of the Cretan and of Crete.

From Canea you can see survivals of old struggles in fortifications of Venetians or forts of Turks, monasteries such as Goniá or Haghía Triádha, mountain - villages and mountain-shepherds with their flocks, the Akrotiri Peninsula, the gorge of Thériso—can do all this in four days, and sleep each night in your own bed in the Canea Hotel. Further, with one night out you may see the plain of Hómalo, and even go a little way down the gorge of Ruméli; and with one night out, go up into the White Mountains and reach the snow.

A week! In one week you may see so much that is interesting or beautiful, that you will not be content till you can go to Crete again.

All the places, then, mentioned in Part I. are to be seen from Canea, and fall within the possibilities of a single week.

## CHAPTER I.

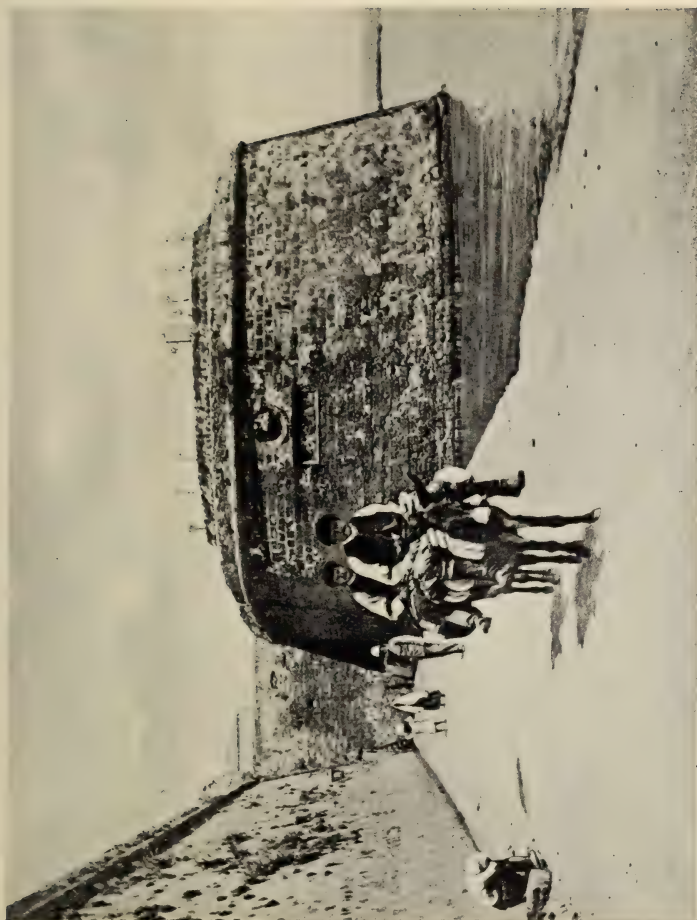
### CANEA AND THE PLÁTANOS RIVER.

CANEA is the old Cydonia, a city and province so strong as to engage in war at the same time both its powerful rivals Knossos and Gortyna. Its Greek name is Khanía (τὰ χανία), its Venetian name was Cania, the Italians call it La Canea, the French La Canée, while with us it is commonly known as Canea.

No one can have approached the harbour of Canea from the sea without being struck by the picturesque appearance of the town, and by the extreme beauty of its background, the long snowy range of the White Mountains. The ascent to this range begins at little more than three miles from the town.

The harbour, which has a difficult entry, was formed in ancient times by taking advantage of natural rocky reefs which nearly enclose two little adjoining bays that run at right angles to one another. The Venetian stonework of the entrance





CANEA : VENETIAN STONEWORK OF HARBOUR.

[*Benhadin.*



is still in a good state of preservation, and, carved in stone and set in the wall, is still the Lion of St. Mark. On the port side as you enter the harbour is the lighthouse, and at the head of the harbour on this side is a row of large arched buildings now used as stores: these are the sheds in which the Venetians built their galleys. The land of western Crete has risen very much, perhaps even within historic time, and probably the entry was deeper then; but only small sailing craft can now enter the harbour, and passenger steamers have to lie in the roadstead. Even the larger Venetian vessels have to lie outside within the shelter of the island of Dhia. The opposite point of the harbour entrance is formed by the parade-ground of the garrison of a small redoubt.

The quay is very picturesque with its confusion of barrels and colour of merchandise, its groups by the fountain in the wall, and the minaret of a little domed mosque from which the muezzin calls to prayer. It may be remarked in passing that few of the Mussulmans of Crete appear to pay any attention to the summons. But the "Turks" of Crete—being not really Turks but renegade Christians—are but half-hearted children of the Prophet. The real Turks, those which formed the army of occupation, have gone, and the remnant that is left and calls itself Turkish, is Cretan in feature and Cretan even in tongue. Few of the Cretan Turks I came across could speak much Turkish, while many, probably

most of them, are so little obedient to the precepts of the Koran, as to drink wine freely.

The British and French Consulates are also down on the quay, but their Consuls and the rest of the foreign Consuls live outside the town, in a pleasant and hilly-quarter called Khalépa, that lies at the base of the Akrotiri—a large peninsula—by the sea. Many of the houses in Khalépa have delightful gardens, and from Khalépa one may walk right out into the Akrotiri, or across to Sudha round the head of the bay.

There is but one hotel: it is owned by Monsieur Gallance who has a business in the town, and is managed by Madame Gallance and their son. I cannot speak too highly of these good people: every English stranger must, like myself, have had reason to be grateful to them for many acts of kindness.

The little square into which a vaulted passage and a roadway open from the quay is a most entertaining place. I know no place in Europe (not even excepting the Galata Bridge) where a greater variety of types can be studied, or in a medley more picturesque. Greeks, Cretans, Cretan-Mohammedans, Arabs, Turks, Egyptians, kilted Albanians—Levantines of all descriptions pass and repass in that little square. During the occupation of the Powers the faces and uniforms of Russian, Italian, French, or English soldiers and sailors gave a new element of variety to the scene. Water-carriers, wine-carriers, oil-carriers,



boot-polishers, vendors of sweetmeats, vendors of coffee with their portable fires and trays of glasses, fruit-sellers, picture-sellers, holders of pitches for gambling-games, and the representatives of many other itinerant trades combined to make at certain hours in the day a wonderful confusion of movement, colour and cries. Now a string of donkeys passes through: they are laden with skins of wine, stones for building, brushwood for fires, pottery, oranges, or other merchandise, the bare-legged boys that drive them shouting incessantly their cry of "Mu-lá!" Outside the guard-house at the corner stands a group of the Civil Guards—splendid types of manhood, and quite conscious of their attractive appearance in their beautiful dress. They wear the short blue Cretan jacket and embroidered waistcoat and full black trousers; snowy-white open-work linen shows on their chests and at their wrists, a bandolier and a black sash are round the waist, and for head-dress they have a jaunty cap of astrachan. There is a space of bare leg below the knee, then the open-work hem of a thin black stocking, which shows for just about an inch above the long Cretan boots. One point about the figures of these men, as of all the mountain-villagers, is the extreme smallness of their waists, which in some cases are almost wasp-like. It is interesting to observe that this has always been a Cretan characteristic; for the figures on the frescoes and vases in the Minoan section of the Museum

in Candia (e.g. the famous Cup-bearer) have the same remarkable slenderness of waist.\*

I was always pleased when the Greek boatmen brought the big casks through. These are enormous barrels (I suppose one should call them tuns), and it takes eight men to carry one of them. The barrel, filled with oil or wine, is slung upon a long spar, and four men in front and four behind bear it on their shoulders. Barefooted they come, singing a song or chanty all the way. So great is the weight of the cask that they could not carry it were it not for the song and the resolution this inspires. Venetian windows, doorways, and house-fronts are found in several of the streets, and they are always beautiful in form.

The two business streets of Canea lead out of this square. One runs straight up to the town entrance, passes through the ramparts, and crosses by a bridge the great Venetian fosse, where it joins the main road; that on the left runs to Sudha, throwing off a branch to Khalépa, and on the right through the Kladhíso suburb to the hill-village of Plataniás and the monastery of Goniá, which in its turn throws off a highway to the country town of Alikianú. Opposite the bridge is an *octroi*, where everything brought from the country is weighed and paid for before it enters the town.

\* Some writers have taken it for granted that the small waist of the paintings was merely an artistic licence; but the artist only exaggerated a characteristic, for the small waist is still most noticeable in these mountaineers. Whether it is natural or whether produced by tight-belted I cannot say, but believe it to be natural.



CANEA : A STREET WITH VENETIAN WORK.





The Venetian ramparts are a splendid example of stonemasons' work. They are so high, or rather the fosse that their great wall faces is so deep, that they must have been quite unscalable at the period they represent. They were, after one or two failures at inferior hands, constructed by the greatest masters of engineering that Venice could command. The floor of this great fosse through which a stream runs has long been used as a market-garden.

There is an interesting bazaar outside the walls where cloth is dyed its beautiful murex blue, where wood-work, iron-work and other handicrafts are carried on, and skins of martens, badgers, cats, hares, and ibex hang for sale; fine pairs of ibex-horns are sometimes to be seen there.

Visitors who spend some time in Canea will find many more points of interest than those mentioned here. I am not a good guide to the town, because, as my interests lay away in the mountains and the plains, I only spent short intervals in the cities, leaving again as soon as I could possibly do so.

Just outside the town—in the Kladhíso outlet—is the little stream of that name, crossed by the first bridge you come to on the Goniá road. As one could walk to it in less than half-an-hour, I often slipped away to this pleasant spot. It is quite a good collecting-ground for a naturalist, in spite of the fact that it is scarcely clear of the houses. When you leave the long street from the harbour you cross the Venetian fosse, turn round to the

right by the ramparts, and then are in our road. The road is in itself rather interesting, because of the picturesque little drinking-places, a vine-shaded pergola or arbour in front of each, and the little bazaars where iron-work, saddle-making, or other trades are carried on. The aloë-hedges that border the gardens throw up their great flower-heads in early summer, and the gigantic stalks are cut and used for shores and as props for olive-trees, to keep the branches out of reach of the goats.

The bridge is an old and long one, built of stone, and when you reach it you see on your left the little stream winding among gardens and olive-trees, and on your right open fields with banks and stone-walls, and the stream widening out to reach the sand-hills and the sea. But though the summer stream by the bridge is very small, it runs through a wide area of boulder and pebbles that marks its flooded and tumultuous passage after the melting of the mountain-snow. There were things about this little stream that pleased me: here and there stood a venerable olive-tree, with knotted bark and twisted roots like a tangle of pythons; and sometimes the tree was hollow like a funnel, or had holes in it in which owls dwelt; and in places there were high sand-walls to the stream, up which the lizards ran. A good many birds used to come to this stream—sandpipers were always there, and ravens nearer the sea. I generally had a trap or two set

not far from the bridge, and here in an old stone wall we caught a shrew\*—the only shrew yet recorded from Crete. It belongs to a genus of shrews whose members have stiff bristles in their tails.

Another favourite hunting-ground of mine was the Plátanos River further along the Goniá road. This river is the Iardanos of the Odyssey, on whose banks dwelt the Cydonians. It is one of the few permanent rivers of Crete—the largest in western Crete—and is a beautiful and interesting little stream. It rises in the White Mountains just above the village of Mesklá, flows down to the plain of Alikianú, and finds its way thence to Plataniás and the sea. Plataniás in itself is perched high up, a good specimen of an old rock-village.

There are few more charming short walks than that up the river from the Plataniás Bridge. You may ride or drive from Canea along the coast, past the little rocky islets where they gather salt, in view of the island of Theódoro, by a sea that is every shade of blue, the wayside azure with viper's bugloss and pink with convolvulus, till you reach the bridge of the river, when you may send the horses back. Then you take up the proper right bank of the river on foot, until you are opposite the village of Patelári on the other side of the stream. Here, in the dry and open path in front of me, I once surprised a Little bittern

\* *Crocidura canaeae*.



(*Ardetta minuta*) which rose on the wing and flew down to the river. I could not imagine what the bird of the marsh and the reed-bed was doing there, but concluded that possibly it was looking for grasshoppers. At this point you turn off to the left through a dirty little village bearing the unconscionable name of Vlakheronítes, skirting the hills until you come to Kirtomádho, and so by the main road from Alikianú to Canea again.

Nightingales were singing all around me late one afternoon when I took this walk. There was no proper path to begin with, only winding tracks made by cattle, through plane and lentiscus scrub. Round me circled a pair of Montagu's harriers (*Circus cineraceus*) quartering the ground very closely for prey. This beautiful bird of prey, which is distributed over the European continent and ranges to Africa and India, is one of the three species of harriers still found in Britain. It also has a way of pausing in its flight and hanging over a particular spot with fanning wings in the manner of the marsh-harrier (*C. aeruginosus*). Bright green tree-frogs sat in the bushes, giving now and then a trilling call. Oleanders were just coming into flower. Corn-buntings sang from the tops of trees, and Cetti's warblers ceased their singing and dived into bushes as I passed. There was one particularly pretty corner where aloes that once had fenced a garden—now long since overgrown—threw up great blue spikes against the



green of the native scrub. Beyond this foreground was a middle distance of sloping hills, and then the peaked outline and snowy sides of the White Mountains sharp against the sky. When I came out that evening on to the main road which runs under fine old olives, the moon showed net-works of leaf and bough upon the dusty highway, crickets shrilled in the banks, and voices of the Little owls answered each other from tree to tree.

But there is yet another trip from Canea connected with this river of Plataniás which, if you take mules or horses, can easily be done in the day. It is to strike the river near the important village of Alikianú and to follow it thence to its fountain-head, near Mesklá, in the hills. You ride at first over a bare, flat plain. If then you cross the river to its proper left bank, you will see on your right front a tract of level land inviting deviation. It is covered with bush—sometimes high bush, higher than your head as you sit in the saddle. This bush is chiefly composed of plane, oleander, lentiscus and thorny growths. In places it is quite impassable—a veritable jungle. There are little bogs in it and reed-beds. It is quite different from anything I have seen elsewhere in Crete. It is enclosed between two streams, into which the main river has divided. The river is a single stream again higher up, and following it you reach the village of Furnés, not marked on Kiepert's map.

I camped here one night. It was in the early days of my second stay in Crete, and I had my tent, though I only used this in the island three times—once here, once at Mesklá and once on Hómalo. It was an unnecessary encumbrance, and on the longer journeys I left it behind and slept on the ground in a sleeping-bag, unless I put up at a monastery or in a station of the Civil Guard. But on this occasion I had the tent, and pitched it just below Furnés under a large and shady plane-tree by the water's edge. It was a very pleasant place, with orange orchards near it, the oranges lying in great golden heaps waiting for panniered donkeys to carry them away. A kind, nice-mannered woman brought me an apronful and insisted on my acceptance. She said, "I felt I must bring them as this is the first English gentleman I have ever seen"—so Michael, my mule-boy, interpreted her remark. Wonderful oranges they were, too. I suppose I never ate so many oranges as at Furnés.

It was at Furnés that I came across an interesting example of protective resemblance. I had been collecting seed of a shrub in which the seed capsules are thickly grouped above the nodes of the branches. I sent the boy to cut some more seed-bearing shoots and he brought me one having apparently a double set of seed. As soon as I had it in my hand, I noticed that the lower set was not composed of seeds at all, but entirely of little snail-shells, so closely imitative of the seeds

that they might quite easily deceive any snail-eating bird. The shrub is called *Vitex Agnus-castus* only: I am sorry that it has no English name.

This boy amused himself by slinging stones across the river at a mark. Cretan slingers were celebrated for their skill in the very earliest times, and Michael was marvellously expert with a sling, sending stones from a heap with great force in a continuous shower. He could throw from his sling in several different ways. There is a custom in Crete for the boys of two villages to have pitched battles stone-slinging—perhaps forty lads on each side; but it is so dangerous that I understand it is now forbidden, though Michael told me that he had only known of one actual death in these contests.

Past the tent the river ran deeply, rapidly, and cold (it seemed icily cold when I took my morning dip), but there it had broken up into smaller, shallow streams with a wide stretch of mud and shingle about them. And there were over-hanging, bramble-covered banks, and hollow old olive-trees in a garden. It was a promising place for small mammals, and I had several traps set there—some in hollows of the olive-trunks, some along the banks, and elsewhere. I got a few things, though nothing of importance, and twice was thoroughly taken in.

It was in this way. Standing in the stream, separated by water from the bank, was a pollard plane. Its rootlets were all spread out in the



water like those of an English alder or willow, mud filled the spaces between the main roots and water lapped against the mud. I noticed on this mud tracks of innumerable little feet, and with some difficulty I swung myself across and set a trap on the mud. When I visited it in the morning the trap was not sprung. This time I set the trap actually in the shallow water. "There will be no doubt about it now," I thought, as I swung myself back. That evening I visited the place again, but the trap was still unsprung. I used to go round my traps quite early while Michael was making the fire and getting the tea ready. It usually took me about half-an-hour. So early the next morning, as I was going to move that day, I lifted all the farther traps and then came back to my water-trap which was not twenty yards from the tent. I looked over the bank very quietly, and this was what I saw: the stream had fallen a little in the night, and part of the trap was just clear of the water; and, examining it very eagerly, raised up on his toes, with his head on one side and a distinctly critical look in his eye, was a large green lizard. I burst out laughing. "How's that for an old trapper," I thought. So there was my water-vole or rare new mammal, or whatever I had expected—simply a lizard!

Again, upon a wide stretch of caked mud, rather damp in places, was a network of runs exactly like mole-runs, but made by a much smaller



creature than a mole. I really believed that here I had a new species of mole—a pigmy mole perhaps, corresponding to our pigmy shrew. But my mole-traps were too large for so small an animal. What was I to do? Two small boys saw me examining this matter, but they said nothing. So I went back to breakfast pondering how I could take this mole. Perhaps a “bender” and a noose might do it? While I was still at breakfast up came two small boys shouting with laughter, and offered for my acceptance the creature that had made the runs—an immense mole-cricket! (*Gryllotalpa*).

I struck camp.

## CHAPTER II.

### MESKLÁ.

ABOVE Furnés the character of the river begins to alter : it becomes rocky. You cannot keep to one side of the stream, but have to cross it several times because of rocky banks and jungle. There are deepish pools here and there, but there is always a shallow place for the horses.

So, gradually, you work your way up a stream like a perfect Highland trout-stream but for the rose-coloured blooms of the oleander, till you rise suddenly into the mountains and reach the village of Mesklá. I was very fond of this place and went there several times. Of course, you can reach it from Canea by other and quicker routes ; there is a track almost parallel with and not far from the river, and another way by Murniés and Théríso (which will come in the next chapter), but this river-route has its own charm and should at any rate be taken once.

In all Crete there is not a more fascinating spot than Mesklá, and that is saying a very great deal. It is a village of greenery and of many waters.

Two streams meet here. One comes out of the mountain-side and rushes down over great

rounded slabs of rocks, almost a cataract. Over this stream hang the green boughs of trees that dip into the foam and bubbles. The second stream appears quite unexpectedly, and not as common streams appear: for, low in a hollow is an old plane, so large and also so dense in foliage that beneath it there is but a sombre light; by the plane is a wall or face of upright rock, and out of it, right at its base, comes flowing through the arch of a natural opening a full and rapid stream. It is so large, even at this place of its birth, that one crosses it on stepping-stones; at this place of its appearing, it would be more accurate to say, for who knows where it was born! Deep back somewhere, in the womb of the mountain, is the cradle of this sparkling stream. It comes forth full-formed, when first we see it, like Pallas from the head of Zeus.

But there is more water than this: you get a sense of water everywhere, for the skill of these mountaineers has led the water through gardens and along the tops of walls. There is one place in the village where the water not only flows from a wall in a strong spout, but overflows along the top, and drips all down the sides, so that the wall is beautifully green with sheets of maiden-hair fern.

I suppose one would not notice these things so much in England, where everything is soft and green—where one need never be hot nor thirsty long. And indeed, when one takes this river

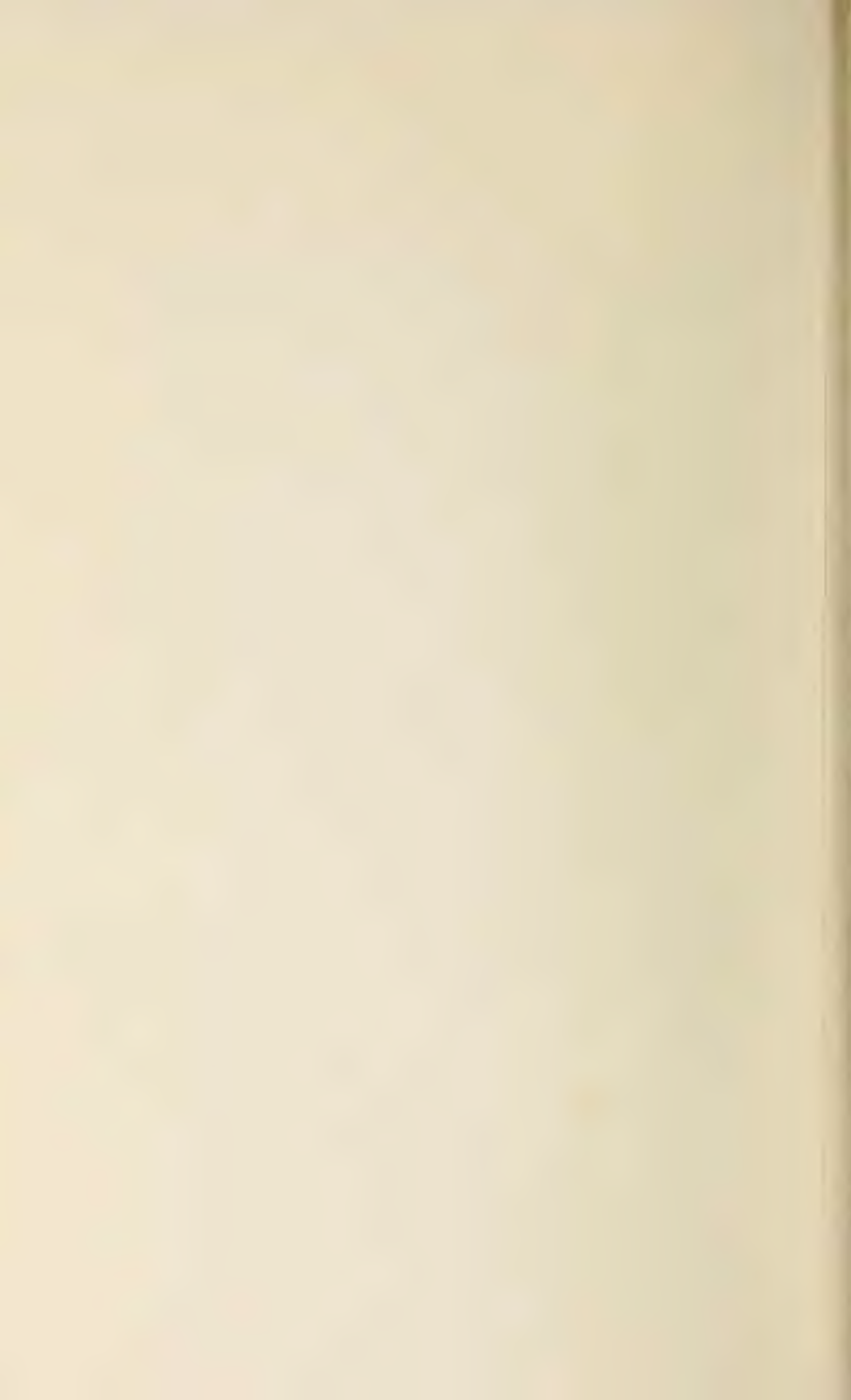
journey, Mesklá is only the culminating point of the green river-scenery. But when one comes upon it after a long hot day in the mountains (and the Cretan mountains can be pretty hot), after long struggles over waterless and heated rocks, then, to reach this emerald Mesklá, with its waterfalls and dripping maidenhair is, in a quiet way, like coming on a palm-well in the desert.

The first time I visited Mesklá I was on my way back from Hómalo, and the next time I combined it with this river-journey, and both times I had my tent. I had made up my mind to camp by the stream, but we wandered up and down for some time before I could find any promising place: there always seemed to be some immovable boulder in the way. At last I hit upon a spot which, though pretty rough and entailing much chopping and clearing, was very beautiful. Clear, cold water went racing by, within five paces of the tent, and immediately behind it rose a steep glen or corrie filled with myrtle-bushes. Above the myrtle, and up to the high top of the corrie, were oaks and cypress-trees. The rocks were hung with honeysuckle and wild-brier in full bloom, and starred with a white syringa-like flower which they call Steráki (*Styrax officinale*). When I climbed up there the next morning to look at the traps I had set overnight, blackbirds, blue rock-thrushes, nightingales, chaffinches, and small





MESKLÁ : A FIELD GUARDIAN AND AN OLD VILLAGER.



warblers were singing all around. It was a lovely time.

In Mesklá is a ruined chapel; sheep go into it. This chapel is hung about with old and faded distemper panel-pictures, some quite indistinguishable and all going to decay. I asked why they did not move these pictures into the little church; but they did not know why. I then enquired whether I might not take one as a memento and to prevent it from being completely lost. The old gentleman whom you see here, and the Field-guardian with his bandolier and rifle, consulted together for some time, and at last the latter said that if I gave him something to hand to the priest in exchange for the picture I might take one. So I gave him four francs, and hoped the priest might get it.

## CHAPTER III.

### THÉRISO AND HÓMALO PLAIN.

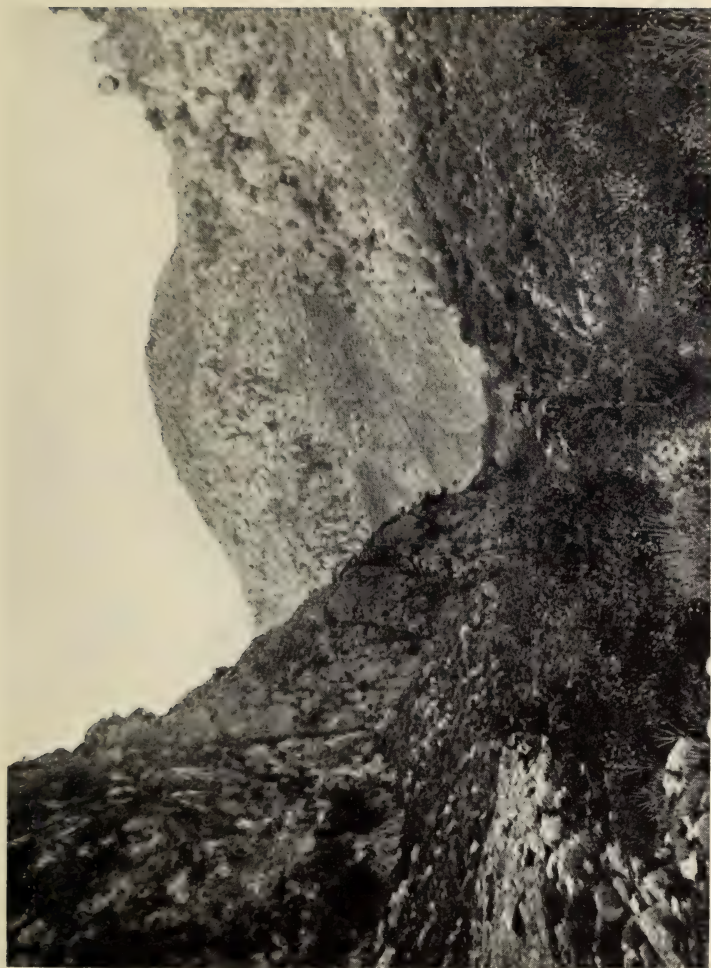
ANYONE who stays in Canea should certainly visit the mountain-plain of Hómalo.

There are three of these high plains in Crete, and they are very curious: one is set in each natural division of the island. The western one, in the White Mountains, is called Hómalo (pronounced Ómalo); the central one, in the Ida range, is known as Nidha; while in the east, in the Dikte range, lies Lasithi. Nidha is the highest, Lasithi the lowest of these plains. Their relative heights are, roughly—Nidha 4,560 ft., Hómalo 3,785 ft., and Lasithi 3,000 ft. For want of a better expression they may perhaps be spoken of as basin-like hollows, though the sides are not smoothly rounded like those of a basin or crater, but are formed of irregular mountain-masses, while the bottom of the basin is flat.

To reach the Plain of Hómalo you may take the route through Thériso, Mesklá, and Lákkos, the route we are taking now.

Just outside the town of Canea we pass an old Turkish cemetery with its rank grass and marble tombstones, and at the end of two miles and a





THE GORGE OF THÉRISO.



half enter the long single street of a village called Murniés. From there we ride up into the mountains, and after some two hours or more of scrambling up and down, cross the bed of a stream and enter the gorge of Thériso.

This is not one of the narrow perpendicular gorges of Crete, not gloomy and confined like those of Askíphu and Ruméli; they are terrific. Thériso is striking in quite another way. When the sun is high it is all flooded with light, for it is a spacious gorge, and its mountainous sides are only precipitous here and there; so that, filled with the sunshine which brings out the colours of the flowers on the rocks, it is beautiful and gay. But for picturesque effects it is well to enter it when the sun is low, because then you get very fine contrasts: one side of the gorge will be in shadow while the other is all golden light. In any case the gorge of Thériso, with its rocky sides, rising many hundred feet above the mule track, is a beautiful thing, to be ridden slowly through.

Flocks of sheep and goats are fed on the side of this gorge, and it is really marvellous to see the barefooted girls darting over the rocks in order to head a galloping flock, and turn it from entering some small patch of oats.

In this gorge one day I heard a sudden joyous song which I knew very well, as I had often heard it in Mediterranean countries and also in my study at home. It was the brilliant song of the

Blue rock-thrush.\* The song sounded high above my head, but at first I could not see the singer, though I looked up and all about. Then I just caught sight of the bird as, still singing, it dropped straight down on to a rock. I could not remember that I had ever before known this bird to sing on the wing, excepting on short flights from rock to rock.

The first time I went this way a little incident happened which is mentioned here as a warning to others to have their packs securely fastened and to see to it themselves. In those first days I had not fallen into the way of "living on the country" (which, unless one sleeps in a monastery and there gets eggs, means bread and olives and, with luck, cheese and milk), that I afterwards to a great extent adopted. And on this occasion I had a box containing a chicken's leg, sardines, bully-beef, butter, a pot of marmalade and a pot of jam, a long bottle of lime-juice in a straw case, tea, coffee and even condensed milk. Kitchen and pantry effects were represented by such odds and ends as an enamelled plate and cup, a knife, fork and spoon, a spirit lamp, methyalted spirits, and camp candles. There was no top to the box.

I had sent the mules on to Murniés in the charge of a Cretan boy of twenty years old or so, who

\* The rock-thrushes (*Monticolae*) may be said to be intermediate between the true thrushes and the wheatears. They inhabit mountainous or hilly-districts in southern Europe and have a wide distribution beyond its bounds. The blue rock-thrush (*Monticola cyaneus*) has a wild and most melodious song. The bird in captivity becomes surprisingly fearless.



from hanging about the quarters of the British troops had learnt enough English to be useful as interpreter, with sufficient idle ways to be, in almost every other direction, more of a worry than a help. During the Turkish massacres of 1897 this boy, then a small child, was hidden with his uncle (his father was dead) in one of the hollow old olive-trees which formed retreats for so many of the women, children and aged men during this time. But the hiding-place was discovered, and the old man was knifed outside the tree. The boy, who was small enough to crawl down among the roots, was not detected, and keeping quiet until the Turks were gone, managed to save his life.

When I joined the mules at Murniés the packs were already on the animals, and the only thing about which I felt a little doubtful was the food-box, which the boy had perched on the top. However, he had roped it there and I did not want to delay, so off we went.

We were going up a rather narrow and steep track along the mountain-side, and on our left was a steep fall of eighty or a hundred feet with a dry brook at the bottom. The mules were not led, but were following up the track with the mule-boy between them. The leading mule, the box-bearer, frightened by an oleander-branch which the boy was waving near his quarters, swerved suddenly out of the track and up the mountain-side. Off came the box, hit the track, bounded and

went down the fall, jumping from rock to rock, shedding a candle-box here and a bully-beef tin there, and finally came crash to the bottom by the dry brook, where it burst into splinters against a boulder. The assembling of this far-flung collection, the getting-down and the climbing-up with the things in handkerchiefs and the mules' oat-bag (the box was useless) was, in the hot sun, a slow and toilsome task. But, almost unbelievable as it seems, practically nothing was broken but the glass marmalade-jar, an orange or two and the teaspoon. Even the long bottle of lime-juice in its straw case was rescued from an oleander-bush, unhurt. The teaspoon was snapped in half.

The village of Thériso, a village with beautiful olive-trees, is not far from the head of the gorge. The villagers are nice, kindly people, and the children bring pink roses and offer these as a gift, not looking for pennies as they would do near a town. The women of Crete are often very much secluded, and those of Thériso never appeared, but the men used to sit in a row while I had my tea, and find out from the mule-boy all they could about me. The people generally in the mountain-parts of Crete are mystified by a naturalist, and his occupations convey little to their minds—little that seems either sensible or is indeed intelligible. On the whole they regard one, perhaps, as rather soft-headed—as harmless, but still just a little touched in the head: else why should a man be eternally digging and picking and smelling





MEN OF THERISO.



plants, or taking endless trouble to follow some tiny bird over the heated rocks and peer at it through glasses; and then, if he shoots it, not even to eat it, but only take with patient trouble its feathers and its skin! It is ridiculous.

When one stares at the cliffs, taps at the rocks and examines stones for fossils—that is a very different matter. They can understand that, for then they are quite sure one is looking for gold, and are convinced that this is really one's mission in the country. It is curious how general this idea of the gold-hunter is. I remember it in so many countries as a working theory of my pursuits.

Among the many plants of the Thériso gorge, one of the commonest is a labiate plant, a salvia (*S. pomifera*), called by the Cretans *Phascomilia*. From the dried leaves of this plant they make an infusion which they drink as tea. A gall, commonly found on it, is eaten to quench thirst. My mule-boy was constantly picking these as he went along.

From Thériso, then, the mule-track gradually rises till it brings you to the edge of a high ridge. From this point you look down into a spacious valley lying 2,000 ft. below. Through the bottom of this valley runs the Platanós River, rising just above Mesklá, which is out of sight among the trees. Across the valley, high on the opposite hill, you can see the red roofs of the village of Lakko, or Lákkos, scattered over a terraced spur.

So we descend by the steep mule-track, ride over the valley, cross the river by the bridge above Mesklá, pass that beautiful place, and climb the hill to Lákkos.

Just as you are reaching this village you come to a fountain at the corner of the road which always pleased me much. Like so many of the springs and fountains of Crete, it lies in the shadow of an immense and heavy-foliaged plane-tree. The women come here to wash the clothes, and go backwards and forwards to and from the village with great earthenware water-pots upon their heads. The sombre shade of the plane in the deep recesses beneath its heavy limbs, the chequered sunshine playing on the water and on the heaps of coloured clothing, the water-pots, and the grouping of the women and children round the spring, make a most delightful picture. I used to think it would be well worth an artist's skill to go to Crete simply to make studies at this spot; I am quite sure that a clever artist could establish a reputation by a single picture of the Lákkos spring.

The name Lákkos, meaning a pit or ditch, possibly had reference to the deep, natural gullies that lie on either side of the mountain-spur on which the village is set.

This village has played a very central part in the feuds of the island, for it is one of the keys to the mountain-stronghold of Sphakiá. I have never myself been much about the village





[*Diamantópolis.*

THE MOUNTAIN PLAIN OF HOMALO.

[29]



so I cannot fairly describe it, but I have been told that it is interesting. I was discouraged by its new red roofs, which seem quite out of place in Crete. I fear I could even have wished it as Spratt saw it in his day, with its houses "sombre and dark as the slatey rock they are built of, without a patch of whitewash." The position of the village is perfect. The houses are scattered over a spur of the mountains which is thickly clothed with oaks, planes, walnut, ilex, cypress, and olives. The combination of the soft grey-blue of the olives with the dark foliage of the other trees is charming.

During the struggle of 1822-28, Thériso and Lákkos were fast allies. The Turks at last took Thériso by turning the flank of the mountain behind; that is to say, by approaching it from the deep valley between the two villages.

Have you ever noticed how luminous an olive-tree is? Even the pruned, unnatural trees of an olive-garden are beautiful in this quality, but when you get a group of olive-trees which have been allowed to make their own growth, quite untrimmed, throwing up their branches like a fountain, you have there one of the most beautiful things in nature. When a low sun shines through such a tree, the whole tree seems to vibrate with and to give off light.

To get to Hómalo, then, you go past Lákkos and travel up into the mountains, on or off your mule, as the inclination takes you. Just above Lákkos, the track runs by fields of lupin,

all ablaze with the orange flowers of the corn-marigold. Then you reach a spring coming out of a rock, where the mules may drink, for this is the last spring, as Lákko is the last village on the way to Hómalo.

After a climb of some two hours the track descends into a small plain, and presently into another, both growing oats, but neither of these is Hómalo. Then a woman passes with a donkey carrying what might be a load of timber, but is really one of the wooden ploughs of Crete, taken to pieces for convenience sake. Her husband had been ploughing with it up in Hómalo and now she is bringing it back for use in the fields by Lákko. So you climb again, and just when you are weary, and voting mountain-plains a mockery and delusion, you top a little ridge to find you are looking into Hómalo.

It made a great impression on me when first I saw it; it was so surprising, after all that climb uphill, to find instead of the summit of a mountain a wide and level plain. A cave is near the entrance to the plain. It is very wide and deep, and water runs in the bottom of it. This cave, no doubt, leads down to great fissures in the rock which are the natural drains of Hómalo.

Near the cave is a house, and a patch of grassy pasture on which I pitched the tent. The house is a long one-storied building, as this picture shows. One end is used for cattle, and in the other the herdsman lives. Upon an opposite hill

is a two-storied house put up by a Cretan gentleman, but this is quite unorthodox; the flat-roofed, open-jointed stone building, half byre, half dwelling, is the proper house of Hómalo.

Little cows and little bulls are used for ploughing, and the plough is of the simplest shape, and so light that, as we have seen, it can be carried on a donkey's back.

It takes three-quarters of an hour to ride at walking pace from end to end of Hómalo, so that I suppose the plain is about two miles long.

There is no grass on Hómalo proper. In this it differs absolutely from the plain of Nidha, for that is entirely a pasture. Hómalo is all ploughed for oats and similar crops. There are a good many trees on the plain, but I only observed two kinds—mountain-pear ("Achlada" in the native) and hawthorn.\*

All through the winter the plain of Hómalo is full of snow, and of course no one lives up there then. But with the return of spring the snow melts, and some friends who visited the plain in March told me that they found it almost a morass, with streams and much standing water. But usually by April all this water has soaked away, filtering down through faults in the limestone rock. Then the natives of Lákkos come up with their cattle and donkeys to plough and sow the ground.

\*Spratt says (*Travels and Researches*, II 177) the trees are "chiefly the ilex." I saw none, nor indeed any in that part of the White Mountains.



The man who lives in the house shown in the picture is a kindly and gentle-spoken man about twenty-five years old. Like all these mountain-villagers he is tall and well set-up, and with his sash-knife, rifle, and cartridge-bandolier and his pretty Cretan dress, is a very picturesque figure. He came round with me and showed much interest in my trapping.

When one has traversed the length of the plain, one enters a narrowing neck until one comes to a solitary large old cypress on one's left, opposite to which and high up on the right is an old stone-fort. This pathway is known as the Xylóskalo—the "ladder of wood." Doubtless in olden days it was contrived on the face of the rock by means of wooden shores and cross-pieces on to the narrow ledge. Whether this was its condition in the days of Pashley and of Spratt one does not know, because under discouragement from the Cretans neither of them attempted it; but probably it had been altered long before their time. This fort guards the entrance to the wonderful gorge sometimes called the gorge of Ruméli from Hágghia Ruméli, a village at its lower end, sometimes the gorge of Samaría from a cottage or two half-way up.

While my companion slept under the large cypress at its head, I went down a little way by the zigzag path and looked down the precipice in which that path is cut. But the climb back would have been too severe at the end of a long







HOUSE OF A LAKKIOT ON HÓMALO.

day, so I only took a few turns of the path, and must leave a description of this gorge and its marvellous stairway to another part of my story. It is one of the only two entrances from the north to the province of Sphakiá,—the most mountainous of the provinces of Crete—the other entrance being by the gorge of Askíphu. Both these gorges have played an important part in the Creto-Turkish struggles and it is plain to see that from such a point as this fort a very few rifles could bar the passage of a host.

It has been said that Hómalo is volcanic in origin, and the plain has been likened to a crater. I could trace no such resemblance, nor the smallest evidence of volcanic extrusion. The hollow in which this plain lies doubtless represents a "fault" in the line of upheaval corresponding to other faults (e.g. Sudha Bay), as explained elsewhere. The plain itself is not volcanic; Hómalo has been formed by those great agencies of denudation—water, wind, and frost. It has also been described as lacustrine, and it is so now in a very limited sense, in so far that on the melting of each winter's snow it temporarily holds some water. But it never can have been a standing lake, for the very good reason that those underground channels and chasms that drain it to-day would always have prevented it from being water-tight. The story of its formation is probably this. Given a ring of encircling mountains, the talus and detritus and all the products of subaërial

denudation must work downwards until they find their lowest possible resting-place in the bases of the hills. Then they would begin to fill up this great hollow and continue doing so, as they are still doing to this day. Why the plain is so level is another matter ; but it is not difficult to realise that just the same agencies may have brought about this. For under the activities of frost and thaw, regelation and melting, flooding and soakage, the general tendency must needs be towards the level ; while, when the floor was dry, wind, the great leveller, would remove the roughnesses and lay the surface flat.

There is plenty of bird-life on the plain : black-birds sounded their alarm-note as I moved among the bushes, rock-thrushes sang, and near the entrance to the cave I came upon a whole family of their newly-flown young who fled chirping into cracks in the rocks, while the old birds called anxiously from overhead. On the mountain-face above this cave rock-martins were nesting, and some pairs of blue rock-pigeons also nested there. High above me circled a pair of griffon-vultures, looking out for a dying kid or lamb among the hills.

Berberis was in full flower, and a splendid mass of scented peony (*Paeonia cretica*) flowered near the path.

On the return journey from Hómaló one can, if one will, avoid Mesklá and Théríso altogether, and take a track that leads from Lákkos down



to the Alikianú Plain. This is a very interesting way, for the tree-life and the geology never allow it to be dull.

You come presently to the schistose rocks, all clean and denuded, and supporting little growth but lentisk and cistus scrub. Then, lower, you reach this same rock where it is still wearing its covering of water-and-frost-piled soil.

Even this is some 1,500 ft. up, and it seems strange to find these high points and ridges still capped with this loose and friable deposit. Much of this shaley rock appears to be of a micaceous character; it glistens in the sun. Above it lies a mass of irregular, unstratified stones and soil, bearing a general resemblance to a morainic deposit. Between this, again, and the rock is sometimes a mass of conglomerate. Here and there on the mountain-face have been great landslips, and a mass of these upper beds has come sliding down leaving the original rock exposed like a great red scar. I judged that some of this unmoved deposit on the top of the rocks could not have been less, and in places may have been much more, than one hundred feet in thickness.

This humus, as shown by its vegetation, is exceedingly fertile; here, for the first time on these mountains, I found a rich growth of arbutus and giant heath.

## CHAPTER IV.

### TO THE SNOW.

ONE more mountain-journey from the town of Canea. It is the 10th of May. The snow which all the winter has mantled the White Mountains, and held their serried peaks glittering in the sunlight of the early spring, is going fast. It has melted away from all the steeper places and now lies only on the sheltered sides, or where deep drifts have grown denser in the melting and have almost turned to ice. In places such as these some snow remains all through the summer heat.

It is worth while going up to the snow—worth while for several reasons, but chiefly because of the beautiful flowers, for many of the flowers that have long been over lower down are here found just unfolding, or still in the perfection of their bloom. From Canea one may go in a carriage to the village of Nerokúri, thence in the saddle to the snow. By sending horses on, and starting quite early in the morning, this can be done in the day. But we will take it more leisurely, and stop for the night at the village of Skour'achlada, the





[Benhadu.

FAMILY AT NEROKÚRI : WOMEN WEAVING.

[37]



village of the brown pear. It lies in the district of Keramía.

The drive to Nerokúri is a pretty one. It goes through oranges and olives. Part of the drive is uncomfortable because of the old Venetian paving of the road, which is rough and bumpy. From here the road is not possible for a carriage, but your pony carries you easily enough up winding ways with wonderful views of sea and plain.

It is only fair to say that Skour'achlada, though picturesque, is a dirty little place and does not compare favourably with most of the mountain-villages in Crete; indeed its group of one or two houses can scarcely be called a village at all. However, the people are kind and do their best to make one comfortable. By leaving pretty early the following morning, one can easily reach the snow and be back to dinner in Canea the same evening.

This will be a suitable place in which to say something about the changes in the character of the vegetation as one ascends. The heights are taken with an aneroid.

During the earlier part of the journey from the village there are a good many vineyards. The last I noticed was at 1,400 ft., and the vigour of these vines seems to be quite unaffected by altitude within this limit. No doubt they would thrive much higher than that if they had suitable soil. But the limestone is reached at a much lower altitude in this part of the White Mountains than

it is on the Hómalo route. Nor is there any of that great deposit of stony humus which one finds near Hómalo, and consequently myrtle, arbutus, and giant heath are absent. A white cistus (*C. salvifolius*) was also in full flower at this elevation and for some 500 ft. higher still.

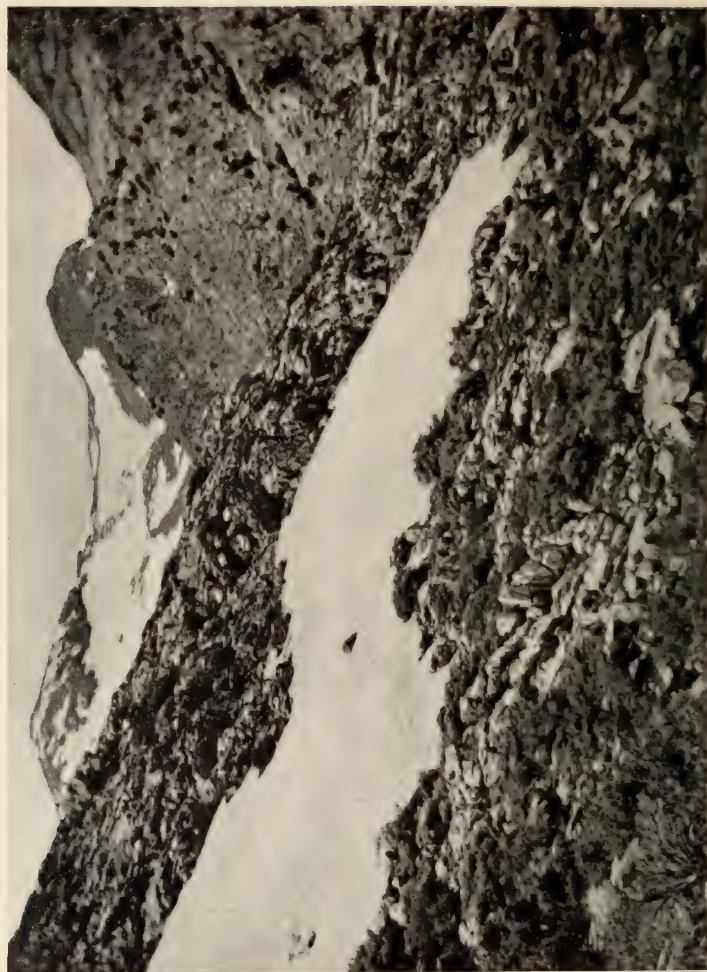
At 1,800 ft. the yellow centaury (*Erythraea*) was flowering, and the first cypresses appeared. It seemed to me that these cypress trees had been planted there, but perhaps not. The cypress grows in this part of the White Mountains up to 6,500 ft. at the least. With the exception of a few in the gorge of Samaría, the pine is absent from the White Mountains, so far as my observation goes.

After this I noticed nothing fresh until at 2,500 ft. I came upon two very striking Composites—one a crepis (*Crepis rubra*), the other a goat's beard (*Tragopogon porrifolium*)\* and both bright pinkish-rose in colour. The *Tragopogon* was a particularly beautiful thing. In making anything like an exhaustive collection of flowering plants from a given district, it is important to visit it at different hours in the day. This goat's-beard is a case in point. Had I not come upon it in the full blaze of middle day I might have missed it altogether, because later in the day it closes up and is then comparatively inconspicuous.

A height of 3,100 ft. produced a beautiful white cyclamen and small yellow asphodel (*Asphodelus fistulosus*).

\*The flower of salsify is ordinarily mauve in colour.





IN THE WHITE MOUNTAINS : KERAMIA DISTRICT.



When we reached 4,000 ft. I found the plant which pleased me most: for, with suddenly a sweet scent in the air, there was a little daphne, in full flower (*D. sericea*).

The orchids began to show themselves—a bright sulphur-coloured one (of the genus *Ophrys*) and one shaped like our *O. pyramidalis*, but more waxen and pure white.

One plant I was anxious to see was the Cretan tulip, and my companion at this point (a little old man who was going with his mule to fetch snow) knew it well.

We searched for it in vain, until at last he climbed down on the side of the ravine to a place where he had gathered it before. Its flowering time was over, but we found two plants whose seed-heads were showing through a prickly mass of the spiny euphorbia (*Euphorbia acanthothamnus*). After a prolonged attack, which meant prizing up pieces of rock with my thick fern-trowel, and some laceration from the evil cushions of thorns through which the plants protruded, we managed to secure two bulbs.

Thorns and spines are a great trouble in Crete; so many mountain-plants are spiny. There is spiny chicory, spiny acanthus, spiny salvia and many more. Some of these plants form most tempting-looking cushions, inviting the unwary to a seat.

All the way along the mountain-trail Black-eared wheatears sang from the rocks and hawked

like flycatchers for insects; once a wren flew across the track and settled on the other side of a ravine, and a pair of eagles (almost certainly golden eagles) swung in circles high above our heads.

Five hundred feet higher than this I came upon leaves of crocus and *chionodoxa*, but there was not a flower of either to be seen. However, I dug up many bulbs, and we pushed on. Presently we reached the first patch of snow, and then where the melting snow soaked into the grasses the ground was white with yellow-centred crocus and blue with "Glory-of-the-snow"; the crocus even pushed its flowers through the snow. I also dug up a small fritillary (? sp.)

While I was busy in this way the old man was digging in the snow with his adze-like hoe. First he built up a snow pillar nearly as solid as ice, and then over this he drew one of his long sacks, and cut the pillar off at the base, and so half of his load was ready. He filled his second sack in the same way and slung one on each side of his mule. The sacks were very long, almost like small hop-sacks, and the two were just about as much as the mule could carry.

Then we started down the mountain. The track was steep in places, and the mule, over-weighted with his load, would inevitably have been carried away but the old man took him in hand and acted as a brake: for whenever we came to a dangerous place, catching hold of the mule's tail, he lay his

weight back against the mule's momentum and so averted disaster.

All the ice required for the towns is obtained in this manner ; and after the long and weary work of toiling up the mountain, loading and carrying the snow all the way back to Canea, the price a man obtains for his load is 15d. ( $1\frac{1}{2}$  francs).

## CHAPTER V.

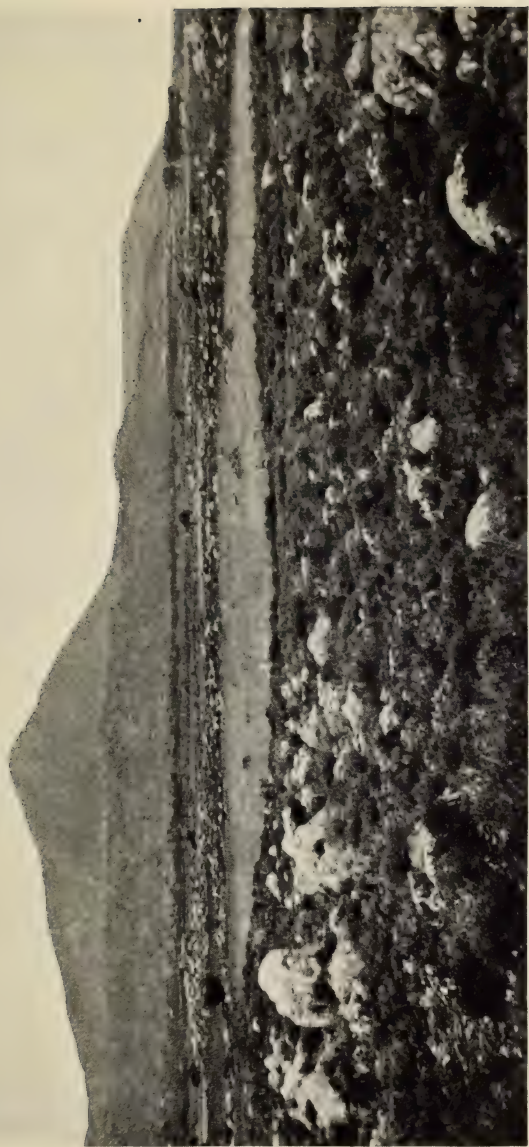
### SUDHA AND THE AKROTIRI.

THE Akrotiri, as the most important of the three large promontories of northern Crete, has no other name: it is known distinctively as "The Promontory" (τό ἀκρωτήριο); its ancient name was Cyamon.

This pear-shaped peninsula is about five miles across. The central portion and the southern side which borders upon the Bay of Sudha form a more or less level plain a good deal raised above the sea, while its periphery on the west, north, and east is of limestone-rock, which rises suddenly from the plain, and at one point reaches a height of over 500 ft.

As one looks from Khalépa, the suburb of Canea, across the headland to its distant hills, which are sharp and bold in outline, the eye is arrested by a long and flat shelf or terrace that cuts right across the foreground of the range of which it forms an integral part. So remarkable is the appearance of this level terrace, that it at once suggests a raised beach. Owing to the fading daylight I was only able to pay it a hurried visit. I rode up a winding path on its eastern end by





THE AKROTIRI : MT. VIGLIA AND THE TERRACE.



a little chapel, near the village of Kumáres. I have no satisfactory theory as to the origin of this long and wide terrace. A difficulty is this, that the rocks of the surface of the terrace did not show, to my observation, signs of the action of water. The surface was all broken by projecting rocks *in situ*, but in no instance did these appear to have been cut or smoothed by waves. Here and there were rocks deeply pitted by holes, but these seemed to me to be due to weathering and not in any instance to the boring of mollusca: and yet it is difficult to imagine any agency except water that could have produced this level tract.

It is no doubt conceivable that the smoothened surface left by water may again have been disintegrated by subaërial action, and that on re-submergence the surface thus roughened was protected by marine deposits which were in their turn removed by subaërial denudation. If such a process did take place, these old deposits would now be far below those marine-beds which form the Akrotiri Plain. But this is a purely hypothetical excursion. I cannot find that any writer has referred to this very striking and interesting feature in the Akrotiri Range; and I feel sure that its close and careful examination by a competent geologist would result in evidence of very great value in determining the agencies that shaped it thus.

There are no streams deserving of the name

on the Akrotiri, and in a dry summer the cattle suffer greatly in consequence. The plain, especially the northerly end of it, is cultivated, and some fairly good olives are there to be seen, but the oat-crops are exceedingly poor and thin. The wild plants also bear witness to the burnt-up character of the ground: most of them are of a stunted form, and there is a general predominance of plants, such as *Sedum*, that have a xerophilous tendency. Near the track, not far from Kubanes, is a pot-hole or *katavothron* which, even if its mouth is now functionless, is a sufficient hint of the reason why the plain is so very dry.

A great many partridges frequent the hilly parts of the Akrotiri, and on the north corner is one of the caves in which the Cretans catch these birds. I heard a good deal about this, but never had an opportunity of seeing it for myself. I can therefore only repeat the description given to me, and this was as follows: This partridge (*Caccabis chukar*) is very fond of entering caves. One of my informants said they do this in order to get out of the sun, but another that they take shelter there at night. Be this as it may, the habit is encouraged by the natives, who spread a little train of food so that it leads into the cave. The entrance to a partridge-trapping cave is level with the ground, and the interior of the cave falls away gradually from this opening. The natural opening is narrowed by stones until only a small entrance is left. Then, when the birds are feeding inside,



a man comes suddenly and closes the entrance and all the birds are easily caught. On being asked how many birds they took at one time by this method, one man said "thirty," another "fifty," but it may be safer, as they were Cretans, to divide these numbers by two. But there is no doubt that a great many partridges are caught in that way, and I was told that the monks of Haghía Triádha, a monastery in the Akrotiri Hills, supply their game-larder from the particular cave in question.

I have not seen that cave; and there are other things on the Akrotiri which I am sorry not to have seen. It lies so close to Canea that I felt I could again visit it at that fatal "any-time," and therefore went far afield into the island, leaving a closer examination of the Akrotiri to be my last bit of work near the end of my time in Crete. But as things fell out, I was never able to visit it again; but the reader will find in the chapter kindly written by Miss Bate information about other points of interest in this peninsula.

On the way back that evening from the Akrotiri we met a party of devotees returning from Haghía Triádha, which lies in the base of the hills about equi-distant from the north-westerly and south-easterly coasts. This was once one of the four principal monasteries of Crete, but it appears to have suffered greatly during the revolution of 1822. Its Hegumenos at the time of Pashley's visit was a somewhat confused theologian: he informed

Pashley that "when the head of St. John the Baptist was brought to Herod, who was seated at table with a large dinner-party, it leapt from the charger. Fear fell upon everyone present and they were all attacked by a fever, which did not leave them till they addressed their prayers to the Saint."\*

Pashley, in the same chapter, figures and describes the beautiful "deserted monastery" of Katoliko and a stalagmitic grotto near it. He mentions that he noticed the plant called dictamnion—"so celebrated among physicians, naturalists and poets"—on the rocks above the grotto, and observes that Theophrastus and Pliny say it was only found in Crete.† All who take an interest in herbaceous flower-beds know a form of that plant: gardeners call it *Dictamnus fraxinella*, because its leaves are rather like those of the ash, and there is a white-flowered one they call *D. alba*; its old English name is dittany, and our cottagers, improving upon the septuagint, call it "Moses-in-the-burning-bush," because the seed-cases give off a volatile essence which flares up if touched with a lighted match.‡

All along the southern shore of the Akrotiri lies the great bay of Sudha—a bay which I suppose could contain the best part of the British fleet. It is the most remarkable land-locked harbour in the Mediterranean.

\* *Travels in Crete*, II 23.

† He gives the references: Theophrastus, H.P., IX 16; Pliny, N.H., XXV 8: "Dictamnium non est alibi quam in Creta."

‡ These forms of the plant are glabrous, but the Cretan one, *D. creticus*, is described as tomentose.

The gulf of Sudha takes its name from a rocky island situated in the very neck of the entrance to the gulf; a second islet lies by it, and a third, called Palæo Sudha, some mile or so further off. Either these three islands, or two of them, were anciently known as Leucæ, and are said to have taken their name from the mythical tradition that also connects with them, in the following legend, Aptera (the "City of the Wingless") which lies on the southern side of the gulf: "Aptera derived its name from the contest which took place between the Muses and the Sirens in a place called the Museion, near the city and the sea, and where, after the victory of the Muses in music, the Sirens lost the feathers of their wings from their shoulders, and, when they had thus become white, cast themselves into the sea: whence the city was called Aptera and the neighbouring islands Leucæ."\*

This island of Sudha which commands the bay was called by the Saracenic conquerors of the ninth century Kharax—which was later changed to Sudha. (Both the Arabic and the Greek name mean a ditch, in reference no doubt to the great fosse that partly encloses the fortifications.)

When the Turks in the seventeenth century supplanted the Venetians in Crete, they did not take all the island at one time. Candia, for instance, was not taken until three-and-twenty years after the fall of Canea; and after the rest

\* Stephanus Byzantinus, quoted by Pashley. For the whole argument on identity of these islands, see *Travels in Crete*, I 50 *et seq.*



of the island had been lost to the Republic, she still retained possession of Grabusa, Sudha, and Spina-longa. Grabusa went first, but Sudha remained in the keeping of the Venetians even as late as Tournefort's time: "La Culata at the further end of the Gulph of Suda, which the Venetians are even at this day masters of."\*

The remains of the Venetian fortifications on this rocky island are in a great degree defensible to-day. You enter by the old Venetian gateway, the guard-house of which during the Powers' occupation was occupied by a guard supplied by the British regiment quartered in the Tuzla barracks. An arcaded entrance was added to the Christian Church by the Mohammedans, and the orientation of the interior was altered to suit the requirements of a mosque.

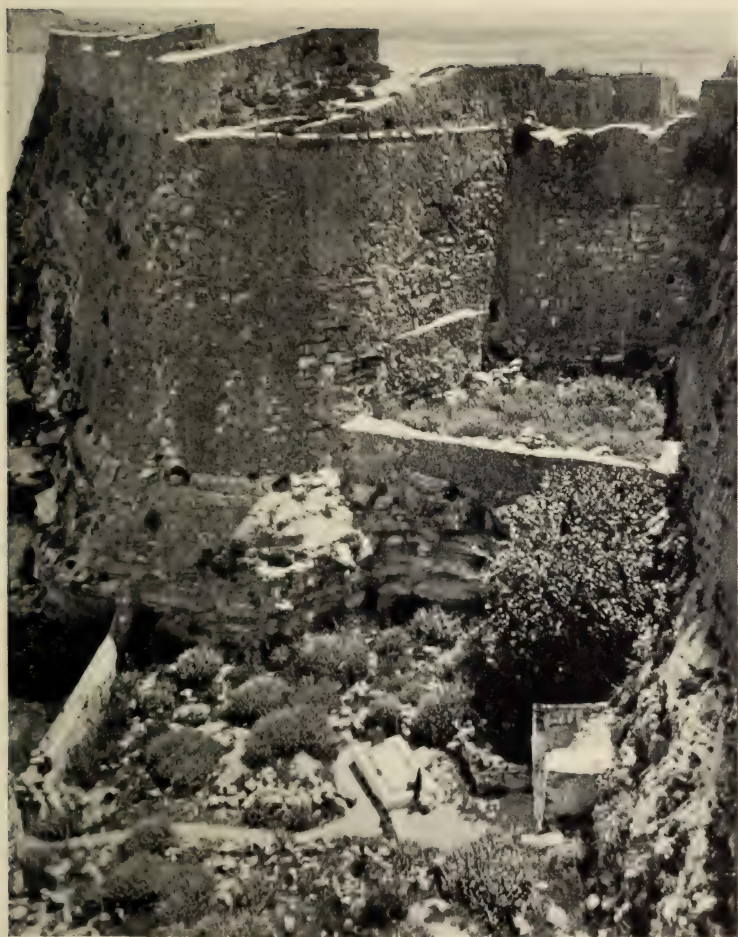
In a hole in the masonry of the arcade a kestrel-falcon had her nest, and though as I approached she left the hole, she flew back while I was still standing there, and returned with confidence to her eggs. Both the kestrel and the lovely little falcon called the Lesser kestrel† are fairly common

\* *Voyage into the Levant*, I 21.

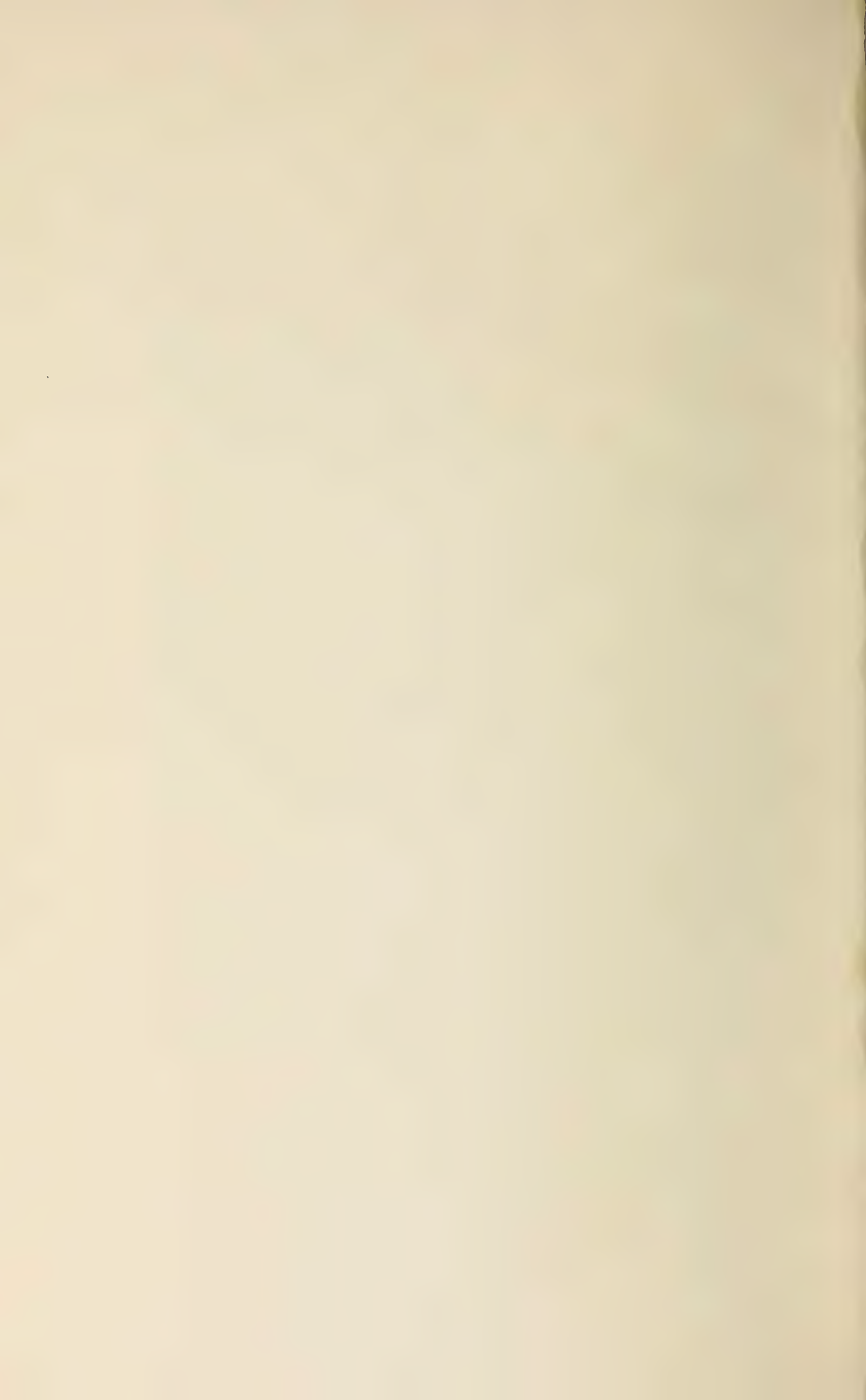
† The kestrel-falcon (*Falco tinnunculus* Linn.), or the windhover, as it is called from its well-known habit of hanging about the fields on tremulous wings, on the look-out for mice and beetles, is too familiar an object to all our country people to need further reference here. It is a bird of extremely wide distribution, reaching to India and the south of Africa.

The Lesser kestrel (*Falco cenchris* Naum.) may be generally described as a smaller edition of the former bird, from which however it is quite distinct. Its range does not extend so far north or east as that of the windhover. It lives on insects—moths, flies, beetles, grasshoppers—with an occasional lizard. The bird is much less abundant in Crete than in certain other Mediterranean districts; all visitors to Spain, for instance, must have noticed the ceaseless flights of numbers of these birds about the Giralda in Seville.





SUDHA ISLAND : VENETIAN FORTIFICATIONS.



in Crete: several of the latter may be seen in the evening round the minarets hawking for flies.

Another beautiful bird of prey found in Crete, which hawks well into the darkness of the evening, is the Eleonora falcon;\* these birds indeed remain so late on the wing that they may easily be mistaken for nightjars.

Three monasteries of the Akrotiri are referred to by various writers: these are Haghía Triádha, Haghios Ioannis, and Katholiko, which has long been in ruins. Miss Dorothea Bate, who has investigated the peninsula more thoroughly than any other modern traveller, in a letter to the writer describes them thus:—

“All are situated in the north or north-east of the promontory and at no great distance from each other. On riding out from Khania, the first to be met with is that of Haghía Triádha which lies, in a sheltered position, in a fertile and well-cultivated spot at the foot of the bare limestone hills which from here rise like a great rampart between the plateau and the sea. Penetrating these hills (behind Haghía Triádha) is a rugged gorge, through which a path leads up to the solitary and much smaller monastery of Haghios Ioannes, distant about three miles. From here a very steep descent, ending in a long flight of

\* The Eleonora falcon (*Falco eleonora*): this most beautiful falcon is everywhere rare and local in its distribution. It was observed by the late Lord Lilford breeding upon the islets of Toro and Vacca near the Straits of Bonifacio, but when I visited these islets some years later I saw nothing of the birds. The late Colonel H. M. Drummond-Hay found it nesting in Malta.

rough steps, leads to the ruined and deserted monastery of Katholiko\* with its arched stone bridge across the gully described and figured by Pashley. The situation is a very isolated and rather gloomy one, for bare and stony hills almost encircle it, and the sea, which is but a short distance away, can only be reached through a deep and narrow winding gorge, with the bed of a torrent as pathway. Near the entrance to the gorge is a fine spring of mineral water, which though I thought it unpleasant to the taste, the natives drink with pleasure."

Miss Bate also describes a fourth monastery. She writes: "That Katholiko is not the only deserted monastery in this part of the Akrotiri I discovered one day when riding from the village of Khoridháki along a lonely and rough mountain-path to H. Ioannes, when we passed the ruins of an old monastery the name of which I was unable to discover. So far as I am aware this monastery has not been mentioned by previous writers; the fact of its being hidden away in the hills and only approached by an unfrequented path would cause it to be easily overlooked by the traveller. As a rule, such deserted buildings are of no interest to the villagers, who consequently would not think of volunteering any information regarding them."

\* Tournefort (*Voyage into the Levant*, I 34) says of this monastery, to which he entered "down a descent of 135 steps cut in the Rock, among terrible Precipices," that "it has so often been rifled by the Corsairs, that they let it run to ruin."



Apropos of the number of ruined villages in Crete the same correspondent says: "Pococke (*Description of the East*) describes the ruined village and chapel of St. George in the Akrotiri. Being anxious to visit it I made many inquiries, but for a long time could meet with no one who knew of its existence. However, one day having ridden through Kunupidhiana to Khorophakiá, I found a peasant who undertook to guide me to it, and immediately started for the northern border hills. This time they were to be penetrated from a point some little distance from the western edge of the range. The route lay over a pathway which was evidently not seldom a torrent bed. The site of the village is hidden in the hills which rise between it and the sea (Cape Tripití) to the north, and the plateau to the south. From its remains it appears to have been quite small and the site of the little chapel, built into the mouth of a cave, can still be seen."

## CHAPTER VI.

### GONIÁ AND THE PENINSULA OF RHÓDOPUS.

THERE is always an attraction about a peninsula, not of course so strong as that of an island, because, since terrestrial animals (other than man) cannot visit nor escape from an island far from the mainland, it is always possible that old forms of life may be found surviving there. But this may be also true in some degree of a peninsula; and as a very young inquirer, too young to know much about the difference between large and small scale maps, I used to pick out these projections—Florida for instance, or Lower California—and think how all the creatures must be huddled together down at the point because they could not get any farther.

Even now a peninsula attracts me, so that when I first looked at Rhódopus as our ship neared Crete, I felt I must go and see it.

Rhódopus, as the map shows, is one of three great promontories of the island of Crete; it was anciently called Tityros. It has a strong character of its own as an isolated limestone-mass, separated from the nearest mountains by a low, water-formed plain, the plain of Kísamos. Were the

land to be again but a little bit submerged, Rhódopus would be an island, just as Theódoro or Dhia are islands to-day. But the land is not sinking, on the contrary there is evidence that at the western end of Crete it is rising. I think the shelves which are visible on the island of Theódoro and also on the eastern side of Rhódopus undoubtedly represent the ancient water-marks, and are in fact old shore-lines. Although Rhódopus is little more than three miles across, its central ridge rises to the height of 2,500 ft.

One day—it was the 29th of May—I sent horses on from Canea to Plataniás, and driving over, rode thence to the village of Kolymbári (the village of “the swimmers”), which lies just in the angle of the gulf of Canea, at the base of Rhódopus.

It is not, from a scenic point of view, a particularly interesting ride, because it follows a flat and rather burnt-up bit of coast; the new road running to Plataniás, was being continued right along the flat that lies between this point and Rhódopus. The road to Plataniás cuts through a deposit that resembles an old moraine, or else a bed of morainic material relaid by the agency of water. I found further on a deposit of blue clay, which seemed as if it might have had the same origin as boulder clay, i.e. a clay produced by the churning action of a glacier. Subsequent examination has, however, shown that this is sea-derived. In connexion with this bed was a brick-yard,

and since no timber was available, the kilns were dependent upon thorn-brush, which was continually being brought in by strings of donkeys, each almost hidden beneath its load.

The river Tavronítis, which is the boundary between the provinces of Canea and Kísamos, had just been spanned by a new girder-bridge, and its stream was running pretty strongly, but whether the small groins that flanked the bridge would prove sufficient to keep the river in its present channel, seemed to me doubtful—but then I am no engineer, only I remember the story of another Cretan river and how the stream avoided the bridge: in that instance they spanned the river with a fine new bridge, but after the next spring floods the defiant stream took another course and left the bridge useless.

The bed of this river is very large; a great deal of it is overgrown with scrub of different kinds. Here for the first and only time in Crete I saw the greenfinch. It was not our greenfinch, but from the extreme brightness of the yellow, especially in the old male, I had no doubt it was the south European form, which has been named *Ligurinus aurantiiventris*. The birds were very wild and continually on the move, settling for an instant at the water's edge, flying off again to some oleanders and then again alighting among the low herbaceous scrub, while the cock kept guard from the tallest tree he could find. On my nearer approach they all whirled away like







MONASTERY OF GONIA.

winter finches. A sea-lavender was out very beautifully here.

Soon after crossing the river we came in sight of the village of Kolymbári, and further away, standing by itself upon the sea, the white monastery of Goniá. Kolymbári is a new village: it was built in connexion with some iron-mines not very far away. At the time of my visit the mines were shut down as they did not pay for the working. We rode on across deep sand and up through the village street, where the male population was engaged in idling before the cafés, because it was the eve of Whit-Sunday. Presently we arrived at the monastery gate. Goniá means an angle—a corner—and was no doubt given to this monastery because it lies in the angle of the bay.

We were met by two of the monks and asked for a night's lodging, which they granted at once. They presented me to the principal Pateras, who told me that the Hegumenos was away visiting another monastery, but would be back before it was dark; meantime we might like some coffee. The constitution of a Cretan monastery consists of the Hegumenos (Prior), pateras (fathers), dhiakoi (deacons, corrupted from diakanoi), kalogheroi (monks). These monks do the work in the fields, and at the time of my visit nearly all of them were away on one or other of the metokhi (farms) belonging to the monastery. Below these again, come the duleutades (servants). I am not

sure whether these take vows ; I believe not. The monks of course are celibates ; they grow their hair and beards long.

The room in which we had our coffee was, I suppose, the common-room or parlour of the monastery. It was furnished with a table or two, a sofa and some wooden chairs, and was hung round with sectional maps of the whole of Crete, and with coloured engravings of portraits of various celebrated Church dignitaries. To one of these they pointed with great pride, as it represented a Metropolitan whom this monastery had supplied to Constantinople. Bishops are almost always chosen from the monks because they must be celibates, although an ordinary priest or papas, if a widower, is eligible for this dignity.

There were also two bookcases of religious books, but they were locked and very dusty and did not seem to have been opened for a very long time. On the lower shelf were two rolls of parchment with big seals, which I understood were the charters of the monastery.

After coffee I climbed the very high hill that rises behind it, and took a well-worn path leading to the villages. I was much surprised to find a great deal of relatively level ground on the top, and crops of oats. High up in the side of a rock appeared a cave ; it looked so promising that I got up to it. However, it was very disappointing, as it scarcely went in any distance ; nothing but a few bats inhabited it, and these I could not catch.



The scene, as I stood upon an eminence, was striking. To the north rose the cap of Rhódopus, 2,500 ft. in height, and below me lay the stony hill-sides with just their poor little squares of oats, out of which projected high rocky tors. Far away beyond and below was the blue and slightly hazy sea, stretching like gauze to the mountains of the Akrotiri beyond Canea.

A little group of peasants with their donkeys came winding along the path that leads up from the coast to the villages among the hills. Rhódopus abounds in scorpions, some of very large size; one could scarcely turn over a favourable stone without finding underneath one of these creatures.

So I came down the hills again along by the stony oat-fields and through the garden of the monks. Here the Prior had come to meet me: he led me into a little huddled hamlet which I noticed then for the first time. Tucked away behind the monastery these cramped little houses represent, no doubt, the very old village of Goniá.

The Prior turned the key in a rusty lock and we were in a tiny church: he said it was one of the oldest churches in Crete, and it looked it. Undecorated except for a few pictures, it was a quaint little place, with its roof marked off by arches into three divisions, in the manner common to all these churches. I imagine that these must represent some distinction such as we find in our

own churches, where the chancel is marked off by an arch. But the Prior said no, he knew of no reason for it, and opined that it was only that the first church had been built so, and that all succeeding churches had followed the same plan. I could not gather that he had any knowledge of the history of this little building nor any desire to know, and I have often noticed this indifference on the part of the clergy both of the Latin and the Greek church. In England it is, I think, rather unusual to find a country rector who does not know a good deal about the history of his church, but in Greek and Roman Catholic countries I have been always struck by the absence of this intelligent interest on the part of the priests. They take an immense interest in modern accessories, in modern pictures and other ornaments, but upon the archæology of the buildings in which they minister they are usually quite uninformed.

So the kind Prior could tell me nothing, and we passed into the monastery. The big gate opens on to a pretty court with lemon-trees in the middle. In one corner is the vine-covered doorway shown in the photograph, the church is across the courtyard fronting the main entrance, and to the right of it is the parlour with the guest-chambers above. There are some five or six of these rooms which open on to a wooden gallery overlooking the courtyard. My room was fairly clean, but the bed was only made of boards



MONASTERY OF GONTÁ : CORNER OF COURTYARD.





with a doubled rug for mattress. The monastery-church contained some very quaint and interesting old paintings and some really fine gilded carving.

To speak of the members of the monastery as monks may give quite a wrong impression of their appearance, conveying the idea of dirty persons with shaven heads, sandalled feet, and a rope about the waist. The monks of Goniá and of Préveli, excepting that each wore a black, blue, or brown cassock according to his degree, were in no way different from other priests of the Greek Church. Dirtiness did not seem to have any place in their system of religion. They wore the tall round hat (they called it a *calimavshi*) which in the Greek Church takes the place of the *biretta*, a short cassock and long Cretan boots, and their uncut hair was always carefully brushed and combed. The young lay-brother who waited on us had his brown cassock looped up for convenience, showing the Cretan trousers and long boots, and with his smooth beardless face and long uncovered hair looked exactly like Rosalind. I could never shake off that impression, and his entry into the room always seemed to bring a feeling of the play.

There are forty-nine monasteries in Crete, though some of these are of small account—merely appendages of larger monasteries—and containing but three or four monks; one indeed—that of the Holy Trinity in Perivólia—is but the hermitage

of a single devotee. Goniá is one of the four largest monasteries of the island.

The figures are given as follows\* :—

	Monks	Lay-Brothers	Total
Toplú (Sitía)	26	56	82
Arkádhi (Rétimo)	32	26	58
Goniá (Kísamos)	17	40	57
Préveli (H. Vasil)	29	28	57

Arkádhi is, I suppose, better known to visitors than any other monastery in Crete, because it is one of the richest and most important, and is situated near one of the ordinary riding routes from the town of Retimo. I have not been there nor have I been to Toplú, but the monastery of Préveli was in its main features very much like that of Goniá, and I expect they are all much alike.

I was glad that I had brought an interpreter, otherwise with my very small knowledge of modern colloquial Greek I should have missed much that was interesting. The Prior explained that his monastery owned fourteen farms; the produce of seven of these went by law to the Government. Some part of this was however returned to the monastery, otherwise, said the Prior, they would not be able to dispense their hospitality to those in need.

\* Στατιστική τοῦ πληθυσμοῦ τῆς κρήτης 1890.

## CHAPTER VII.

### A READING FROM ST. PAUL.

WE still had an hour or more to wait for our evening meal, and how we employed that interval shall be told before this chapter is closed. As the Brothers had already finished their supper, we had ours in the common-room with the Prior, and were waited on by "Rosalind." We had bread and olives, poached eggs floating in warm olive oil, followed by a *ragoût* of potatoes and meat; and there was another dish whose nature I have forgotten. But the strong point of the meal was some excellent red wine made from the Brothers' vines. Like a very full-flavoured Burgundy, it was too strong for me without water, but the Prior put it away easily enough; not that he was in any sense a *bon vivant*, but quite the opposite, for he bore the obvious stamp of a controlled and temperate man.

The Prior asked me endless questions about England, and listened with profound attention to my replies. He said the one dream of his life was to visit England, because it was the only really free country; he also wished to see it for its greatness, because he could not understand how a little island-country like that had come to



have possession of "nearly half the world." He seemed to suppose everybody in England was good, and was surprised when I answered in the affirmative his question as to whether there were any thieves. Then he wanted to know all about them and our other criminals, and what we did with them, and about our poor, especially those who had no homes. And so the talk drifted to the London Police-force, and I told him all I knew. At the end I described to him that popular picture in which the baby crosses the street while the traffic is held up. His mind seized the charm of the idea at once, and he repeated "wonderful, wonderful," while the tears were in his eyes; so that he was a kind-hearted man, and a man of imagination as well.

The voice of a Little owl outside the window led us to touch upon birds. The Little owl was their sacred bird, he said. He told me also how the storks come sailing round in spring, but I found it very hard to identify most of the birds he mentioned. One curious fact is worth recording. We had seen a nightjar as we came in, and I asked what was its name in the Cretan. "Byzastakas," said Michael the mule-boy. Now the word means a "sucker," given to it, said Michael, "because it sucks the sheep and the goats. Sometimes when the shepherds go in the morning they find one of their animals bleeding at the milk-bag, because the bird has drained it dry and sucked so hard." This much surprised me.



Although we at home have long recanted the belief that the nightjar sucks milk, the idea remains in the "goatsucker," still one of our names for this bird. But in what conceivable way can the same name and superstition have obtained in Crete?

It was late before we went to bed, and whether it was my wooden planks, or the quality of the Prior's supper, I cannot say, but I scarcely slept that night. I came, in short, to the conclusion in Crete, that I should make a fair brigand but a very poor monk. In my sleeping-bag away in the mountains I always slept well, but under the roofs I had as a rule but poor nights. Still, it was beautiful enough on the balcony as I walked and smoked a cigarette. A clear moon of ten days' growth lit up the white dome of the church and brought out into clearness the tall pile of rock behind the monastery, with details of the falling ground between us and the sea. The owls kept calling to one another in mournful bell-like notes, or flew out of the shadows to settle on some brightly-lit corner where they sat and curtsied to the moon.

The Prior had explained that though the big bell would begin very early, this was only to rouse the villagers of Kolymbári down the hill, and that after an hour it would ring again, and half an hour later again for service, so that I could "go on sleeping as long as I pleased." The bell began early true enough, and I think that bell would

have roused a tortoise from his winter-sleep; at all events it roused me and set me to writing up my notes. Then I began to see the villagers coming up from Kolymbári; they came strolling up the hill in twos and threes, and families with little children and babies. When an hour or so later I looked into the church it was full, and babies were held perched on the tops of stalls.

The carved and gilded woodwork in the church was extremely good: a small pulpit and the frames of some of the pictures were beautiful works of art. There are a great many paintings, some of them crowded with figures and representing curious subjects. There were a few modern daubs, but the old ones were good, in a quaint way; and some of them were very old—"hundreds of years old," the Prior said. (Pashley says he saw one that bore the date of 1642.)

"Rosalind" kindly brought me a cup of coffee, and then taking Michael with me I went out, meaning to follow the shore and look for caves in the cliffs. We had not gone far when we were joined by a lad of twelve or fourteen, who said he could show me a cave with bats and bones. He told me he had been an onlooker not many years before when Miss Bate had worked this very cave. It was situated only a few yards up in the cliff, and the entrance was overhung with the beautiful flowers of the caper plant

(*Capparis rupestris*). The cave had two entrances and ran back and upwards in a long gallery. It was honeycombed in places by badgers.

As I had no hammer I could do little in the way of collecting bones, and indeed a collector with the skill and thoroughness of my precursor would not leave much for others to do. So after obtaining one or two blocks of embedded bones that looked promising, I turned my attention to the bats. I met with no better fortune here. It was not possible to see the bats without lighting up the cave, and as soon as we had collected brushwood and set it ablaze all the bats left the quarters where they had been hanging, high up in the roof, and set backwards and forwards in a stream. We tried to knock one down, the boys taking branches and sweeping right and left, but to no purpose. The address shown by the little creatures in avoiding these obstructions was remarkable. Is it not Jesse in his *Gleanings*—I have not seen the book for many years—who describes how he hung across a long gallery a piece of gauze pierced here and there with a small hole and how the bat or bats flying up and down the gallery were not puzzled in the least but went straight through a hole every time? After this failure I tried in vain to shoot one with my collecting gun. Nothing suffered but ourselves, and we were pretty near being choked by the smoke of our brushwood. This is not a good way to collect bats.



I made a small collection of plants on my way back to the monastery. One of the prettiest things was the spiny chicory (*Cichorium spinosum*), which grows in rosettes close to the ground and is covered with sky-blue flowers.

On our return, breakfast was ready in the refectory, a room furnished only with tables and benches, which I had not seen before. I had tried to explain to "Rosalind" that I did not care for warm olive oil, that in England we fried our eggs in a little butter. I was therefore a little disappointed when he again brought in eggs floating in an oily medium, but as he pleasantly explained that this was pure hot butter, there was nothing more to be said. Breakfast over we saddled up, and taking leave of our kind entertainers journeyed back to Canea.

I will end this chapter with the account of an incident that took place in the hour before supper on the previous night; and if I describe it somewhat particularly it is because it interested me much.

I had noticed on one of the maps that hung upon the walls an island named St. Paul, and that led me to refer to St. Paul's voyage to Crete and to ask the Prior whether he had not a copy of the Acts of the Apostles, as I wanted to look up the passage about the harbour of Phoenixe.

Among the books on the shelves were several volumes of the "Epistles of the Apostles," which the deacon very kindly brought out. Looking



over these I came upon the Acts. So then I turned to the shipwreck chapter, and said how interesting this story must be to those who lived in Crete. The Prior admitted that he *had* heard it, but he certainly knew no more about it than Mr. Boffin knew of the Roman Empire. The deacon also was extremely hazy. It struck me at once that here was an excellent chance of hearing the old Greek with the modern pronunciation. I therefore asked the deacon, who appeared to be a well-educated man and much superior to his fellows, whether he would not read the chapter through, and he most kindly consented. He allowed me to look over his shoulder so that I could easily follow the text, or I should have had but little, if any, idea of what he was reading. He really read splendidly, and with more and more dramatic force as the interest of the story won upon him, and as his audience increased. For first "Rosalind" came into the room, then another and another brother or servitor appeared in the doorway, attracted by the news, which spread in some way through the building, that the deacon was reading aloud. I think before the chapter was well on its way we must have had some fifteen listeners in the little room.

The deacon was a scholar, which by general testimony is most unusual among these monks, and he referred to a lexicon of ancient and modern Greek for the few words—e.g. *τὴν σκευὴν*, the "tackling"—whose meaning he did not clearly

see. But it was the whole scene that appealed to me. The little room lit by the single lamp whose light fell on the text of pages that had probably not been turned for years, the deacon's fine voice and dramatic intonation of the vivid periods, but above all the wrapt and tense attention of his audience. They were listening to a story few if any of them had ever heard before, and few of them realized that it had any Cretan interest; yet it made its appeal to them directly, it challenged their own experiences as dwellers on a pitiless sea-lashed coast. At the most critical moments in the description one felt, rather than heard, a sort of gasp go through the group.

"And so it came to pass that they all escaped safe to land." There was a general sigh expressive of extreme relief, and for a moment or two the men looked at one another and shook their heads; then the little party broke up and they went to their several tasks, and we were left alone with the Prior.

PART II.





## THE COASTS OF CRETE.

**T**HIS route has not been marked on the map because it is really unnecessary to do so. If the reader will take Canea as his starting-point and follow westward, he will easily see the places referred to. He will see them in the order named—the Isle of Theódoro, Peninsula of Rhódopus, Busa Promontory, Grabúsa Island, Bay of Stomión, Elaphonísi, Paliochóra, Port Lutró (Phoenixe), Sphakiá, Glakiá, Suliá (Haghía Galini), Hierápetras. The eastern part of the northern coast—from Sitía to Candia—comes later on in the book.

## CHAPTER I.

### FROM CANEA WESTWARD.

By taking a passage in a local trading-boat one may often learn a good deal of a coast, especially perhaps of the coast of an island such as Crete, whose mountains either rise directly from the sea or are near enough to be studied in detail through a good glass. From a trip of this kind one gets a general idea of anchorages, of the nature and volume of the local trade and industries, of the range and variety of the forests on the seaward slopes of the mountains, of the breeding-places and species of the sea birds, as well as something of the geology from the sections cut by the waves.

Such a boat runs weekly round the island of Crete, and on Tuesday, the 1st of June, was lying outside the harbour of Canea, rolling badly in a considerable sea, when I reached her side after an unpleasant wetting, and took my passage for the coasting trip.

The *S. Nikolas* is a steamer of 600 tons (net register), but, if I rightly understood her captain, able to carry 800 tons of cargo. I should fancy this to be correct, because the whole of

the waist of the ship is sacrificed to engine-room and to holds for cargo. Right aft are the only passenger cabins, four in number, for the passengers, in general, sleep on deck, and a very motley crowd I found them. Cretans, Greeks, Italians, Egyptians, Turks, and Hebrews filled every corner. Each man had his bundle of food, and many had brought their bedding, and when these bundles were unrolled it required some care to find one's way about.

One large and heavy old man, a Jew, was very noticeable; his clothes, if not over clean, were of good material, and in his buckled shoes, his skull-cap, brown cassock, and sheepskin coat, he looked a veritable relic of the Venetian period. Spreading his palliasse and rug on the tarpaulin of a hatch, he composed himself for sleep; the process gave me some amusement. His hope was to sleep on his side, but, like those loaded figures of tumblers that always settle one way, he kept rolling on to his front or on to his back and never could poise himself properly; and all the while he was jabbering under his breath an assortment of imprecations—or possibly of prayers, but I fear the former. In the issue he was defeated by gravity, for when I last looked at him he had come to a stable position upon his back and was snoring stertorously.

All available deck-space being thus taken up, the first-class passengers were necessarily driven to the bridge, which had been designed with this

in view, for it had an extension—an alcove—in which were a few chairs. On the bridge I found the captain in mufti, and a remarkably handsome and fine man in gold-laced uniform. He was the harbour-master of Canea, but at first I took him for the captain, and wondered at his indifference to navigation as he sat in a chair out of the wind and pulled at a hubble-bubble. I never saw a man so devoted to his pipe: he had two, one more elaborate than the other, the large glass water-holder prettily done in gold and flowers, and the flexible tube wound round with some glistening metal. The mouthpiece was a large amber bulb, much too large for the mouth, so that when he smoked he appeared to be blowing into some wind instrument. I never saw him not smoking, except at meals, and these he cut short that he might again be united to his hubble-bubble. As it was a bit windy, pieces of his fiery charcoal were constantly getting loose and chasing one another about the bridge, and a mop-headed, wild-looking stewards' boy repeatedly travelled backwards and forwards bringing fresh supplies. Whenever I went up on to the bridge in the dark there glowed in a corner the red eye of the harbour-master's pipe.

No boat in the coasting-trade ever yet kept its time, and though the *S. Nikolas* was due to leave Canea at 10 p.m., there was so much loading and unloading of great casks of wine and olive-oil, of sulphur bags and barrels, of



articles of household furniture and all the miscellany of a coaster's cargo, that we did not get off until long after midnight.

The storm had suddenly died and there was a splendid moon, so that one could see the form of Akrotiri on the one hand and of Rhódopus on the other, as we slowly steamed towards Kolymbári, the village of the swimmers. Two little lights shone out over the water, but the village was asleep, and it was only after long delay and much blowing of the hooter, and shouting from the deck, that a boat was induced to come off for the few barrels and baskets we had brought for this place; but we lay rocking there for some time longer, and I went and lay down for sleep.

When I came on deck again at 3 a.m. the moon was riding low over Akrotiri, and we were steaming slowly up the coast of Rhódopus, which lay but some quarter of a mile or less away. On the limestone cliffs were dark shadows in seams and scars and caves, for the moon now shone directly on the coast. Against its rocky base the water broke in phosphorescent light. One could distinctly follow the ledges of the old shore-line, although it was impossible to estimate their height above the water. Then the moon went down behind Akrotiri, and I turned in.

By daybreak the following morning we had steamed down the western side of the peninsula, and in pelting rain were lying off the town of Kísamo Kastéli. Whenever the name of a town

has the adjunct "Kastéli," it refers, of course, to an ancient fortification.

On this boat, as on the island, one normally gets no food—unless it be a tiny cup of Turkish coffee—till eleven or twelve o'clock; but I generally contrived to squeeze out of the cook-steward some olives, bread, oranges, and sometimes an egg.

No sea-birds were to be seen—a remarkable fact. Here we were steaming up the eastern side of a coast with every variety of suitable site for nesting purposes, and not only did I see but one bird—the Mediterranean Herring-Gull (*Larus cachinnans*)—but, though I scanned the rocks with my glass most carefully, no evidence whatever of any nesting-place.

We rounded Cape Busa about six in the morning, and laying a course S.S.W. came to the island of Grabúsa. This tall island rises suddenly from the sea, and its heights are crowned with Venetian fortifications, which one can follow fairly well with a good glass. They appear to encircle the whole summit, and were no doubt capable of holding a considerable number of people. Grabúsa and Sudha, with Spina-longa on the eastern coast of central Crete, were the last points to which the Venetians clung ere driven out by the Turks. It would be hard to imagine a wilder, a more grim and more defiant retreat than Grabúsa for human lives; it appears absolutely unassailable, its precipitous northern sea-front a clean-cut

wedge from base to summit. These fortifications would well repay a close examination. It appeared to me that the Venetians had constructed on the north-west side a shoot right down the cliff. If so, it was doubtless possible for boats to unload there in a quiet sea. On the southern side the fort would be easier of access. It seemed to have a long slope running down from a sharp escarpment. At the base of this the Venetians had their fort. In its subsequent history it was wrested from the Turks by the Cretan Christians during the war before the battle of Navarino, and in their occupation it became a nest of pirates ; at length a British squadron took and held it until the Powers handed Crete over to the Egyptian Viceroy in 1828. The other land seen in the photograph is part of the promontory of Tigani, the "frying-pan," called so from its shape.

So we steamed down the coast of this narrow and rugged promontory, past the points of Spinári, Keramótii and the Haghía Triádha, and lay to in the bay of Enneachoria, or the "nine villages," off the little hamlet of Stomión. The name appears in reality to be a corruption of Inachorium, a city mentioned by Ptolemy alone.\*

It was a surprising change of scenery, for the sharp escarpment near the sea suddenly retreated, and the intervening space was filled with splendid vegetation. Great trees with rounded tops and heavy foliage met the eye : they were chestnuts—

\* Spratt. *Travels and Researches*, II 236.



the only chestnuts, our harbour-master assured me, that grew in the island of Crete. This statement was supported by independent information, and it is true that in all my wanderings I saw no other chestnut-trees. But Spratt\* mentions "a small grove of fine chestnut-trees, about fifty in all," which grew at Sivrano, in the eparchia of Khaniá, near the remains of a Venetian villa; and Raulin speaks of many in the eparchia of Sélino. The mountains, which have for some miles been rather rounded in form, and cultivated to their summits, here become sharp and rocky, and great patches of gypsum or of marble show out white on their sides, and even reach down to the sea.

The marble of Crete is used for building purposes, but according to my information is not suitable for statuary. There were about five houses in Stomión, and at least nine men, for five I counted on a rock, and four came off to us in a boat. They have a nice little beach—a rare feature on this side of Crete. They pulled the boat off in rather a nasty sea, with its freight of flour-sacks, a meat-safe, some boxes, and their mail of a few letters tied round with string. I wondered why they lived in so desolate a spot, and what could possibly be their occupation, for I could see no goats nor sheep. But a glance at the map explains it; for then one sees that this point is not, like the rest of this coast, cut

\* *Ib.*, p. 185.



off from the more fertile land by a barrier of rock, but that here is a cutting in the limestone hills connecting Stomión with the lower cultivated country that runs across the province of Kísamos, till it meets the maritime plain on the gulf of Canea. One sees further that a considerable stream, the Keramaris, runs in here, and that its course, almost to its water-shed, is dotted with villages, though these are invisible from the sea. I could tell that there was a stream of some kind by the masses of oleanders the glass revealed.

Some two hours steaming to the south of this lies the bay of Elaphonísi. The entrance to this anchorage is a nasty one, for rocks lie all about, and a long reef runs out from the shore, just awash at its connecting base, but thence continued only as a dark line beneath the waves. To avoid this it is necessary to bear away a little to the eastward and then swing round and bear nearly due west into the bay. What I took to be a long, low projection running out into the bay and ending in a rocky nose, on which were the cranes of a copper working, is shown on the chart to be an island—the island of Elaphonísi. Spratt identifies this as one of a group of three, anciently called the Musagorae. The other two, he suggests, were at the points of Trakhíli and Sélino, but owing to the rising of the land these two are islands no longer, but capes.\*

\* *Travels and Researches*, II 237.

## CHAPTER II.

### THE SOUTHERN COAST.

STANDING south again we presently rounded cape St. John (H. Ioannis), the south-western point of Crete, and were immediately in one of those squalls which are so frequent on the southern coast. The next place reached is Sélino, the principal town of the province that bears that name. This also has a promontory ending in a high rocky knob called Paliochóra, completely sheltering the bay from westerly and south-westerly winds. On this are the remains of a Venetian fortress.

The whole length of the western coast of Crete, from Grabúsa Point to cape St. John, is closed in by a towering breastwork of limestone-rock, behind which lies the lower schistose formation and the tilled lands of Kísamos, Khanía, and Sélino. But at cape St. John there is a break in the limestone, and from that point along the southern coast of Sélino, and almost as far as the boundary of Sphakiá the formation is of a schistose nature, sometimes with a narrow stretch of flat land between the rocks and the sea. This gives to the district about the bay of Sélino a far more comfortable and attractive appearance

than is borne by any previous spot we have passed. Sélino has also a good wide beach, and cornfields border it; and through the cutting of a stream one sees other cornfields and masses of olive-trees.

The *S. Nikolas* drops a passenger or two at each point of call; and here and there picks one up. Sometimes there is but little to leave or take, sometimes nothing. We put ashore at Elaphonísi nothing except a single man who carried two huge loaves of bread. Here, at Sélino, we land a few passengers and take on board some sacks of flour.

On this southern coast the water is much deeper than on the northern. The 50-fathom line is only some quarter of a mile, or thereabouts, from the shore, and the 100-fathom line but about one-fifth of a mile beyond it. It is consequently possible to stand much closer in than, for example, it is off Canea. On the other hand, these bays are very dangerous because of submerged rocks, and (if we except Lutró) there is not a single harbour, properly so called, on all the southern coast of Crete. We left behind the comfortable country, and steamed along under the cruel-looking cliffs of Sphakiá, in places as much as 2,000 ft. high. I looked at these mountainous sides with much interest, for Sphakiá may be called the key of Crete.

In all the internecine struggles between Christian and Mussulman, Sphakiá has been the rallying



point on the Christian side. Some of its vantage points are all but inaccessible, and terrible and bloody have been the struggles round these. The greatest deeds in fighting or massacre were done by these hardy and untamable mountaineers, and with the Cretans "Sphakiot" is a synonym for all that is glorious in the island's story. The lengths to which this feeling is carried in other parts of the island strikes the visitor as being really absurd. A passer-by will be pointed out as a Sphakiot, and you will be told this almost with bated breath, as though the word left nothing more to be said.

But the truth is, that awe rather than admiration compels this attitude; the Sphakiots terrorise the island. Historically and traditionally these mountaineers have always been predatory and lawless; to this day they take advantage of their credit and deeds as "patriots" to bully the rest of the Cretans. Thus Spratt, referring to a revolutionary demonstration against the Turkish governor after the Crimean war (1859), remarks that "it was the upland, the mountain patriots, who originated and organised the demonstration, and for about two months were in possession of the whole of the lowlands. They fed their beasts or themselves, for the time, upon the abandoned stock and crops of the Mahomedan, and afterwards upon that of their compatriots of the lowland villages, upon whom they quartered themselves. Mutual confidence was then conse-



quently destroyed and the prosperity of the island seriously checked. And thus has Cretan energy been too often misdirected under the guidance of mistaken patriotism on the part of its mountain-inhabitants and their chiefs, who, having less to lose, or being comparatively secure from losses and molestation within their mountain-fastnesses, influence lawlessness by the prestige of their name and the terror of their lawless deeds. The name of Sphakiot is in consequence a byword amongst the lowland Cretans for talents perverted, and for unscrupulous intrigue, theft, and cruelty. Athletic and active, he stalks about the island from one extreme to the other, either as an itinerant merchant or pedlar, or political disturber, and is feared but not respected.”\* Thus wrote Spratt, in 1865: no wonder Crete has had the reputation of being the land of brigands; but there was no gendarmerie in Spratt’s day, and things are better now. The Sphakiots have, by report, the same characteristics, but these are held in check. It is true that I have a friend who, even when sleeping in their houses, suffered robbery at their hands, and in the gorge of Ruméli was fired at, and luckily missed, but made to “stand and deliver.” But I, at any rate, who had fraternised with these same people but a few days before, I who lay out upon their mountains or wandered in their fastnesses alone, was never molested at any time. I always

\* *Travels and Researches*, I 53.

attributed this to the fact that I travelled simply, and that they were as sportsmen so immensely interested in my shooting with my collecting-gun.

The gorge of Ruméli, the most terrific gorge in all the island, runs up into Sphakiá, and this and the gorge of Askíphu form the only approaches from the southern sea. Looking across to the entrance of the Ruméli Gorge it was just possible to see what appeared to be a Turkish fort commanding the entrance. Here the rocks had patches of trees which I knew to be cypresses, and nowhere else do I know of the cypress in Crete.

As before long I travelled up the gorge itself, I will not dwell upon it now.

In the course of the afternoon we came within near view of the harbour of Lutró, a point of the greatest interest to every Christian traveller, as being identical with St. Paul's harbour of Phoenice, which "lieth towards the south-west and north-west." It was quite evident that there were two bays, one lying on either side of a rocky promontory, but as I was able later to make a more careful inspection from the land, I will defer further mention of this also.

Still the towering limestone-rock, then a cliff pierced by many caves—some bearing traces of having been much used as places of refuge—and then the village or little town of Sphakiá. (An English traveller would naturally throw the accent back and call this place Sphákia, but if one wishes to be understood in Crete it is extremely important

to get one's accents right. Here the sounded accent falls on the last letter—Sphakiá). The cliffs on either side of Sphakiá are of beautifully folded rock, and on the east side some of the curves have been broken through, and this has resulted in a great complexity of angles and lines.

Looked at from the sea, the village of Sphakiá gives sufficient evidence of its troubled past. Here and there stand ruined towers—Turkish towers, Cretan towers—bearing witness to many a hard-fought day. The most warlike object I see now is a handsome man about thirty years of age who comes aboard and sits on the bridge. He wears a large revolver, a bandolier well filled with cartridges, and has a knife\* about two feet long, ivory-handled and silver-sheathed, stuck in the girdle† round his waist. The scabbard is very finely chased, and the wearer with his long Cretan boots, blue embroidered waistcoat and snowy linen, looks the picture of a handsome and debonair brigand. These long knives were, until of late years, characteristic of the country, and every “patriot” wore one; but so frequent was their use, where a passing passion was reason enough to kill a man, that the law now forbids the carrying of any knife longer than I think three, or it may be, four inches. But Sphakiá is still to a great extent a law unto itself; at any rate our brave, who said he had bought it in Canea, wore his knife openly, to the admiration of all.

\* Μαχαίρι.

† Ζωνάρι.



Just before we reached Sphakiá the skipper beckoned me to the side of the bridge, and pointing over the vessel's side said, "Good water." Supposing that he meant good anchorage, I took but little notice of the remark beyond a word of assent. But the skipper, disappointed at my want of interest, repeated the assertion, saying over again with much emphasis, "Kaló, kaló neró." "Good, *good* water," as he again pointed down into the sea. In Crete one is so eternally hearing the word "kaló," and gets so tired of it, that even then I could call up little interest in the statement, and indeed I felt rather bored, and the incident would have passed altogether from my memory but for a reminder of it that I met with many days later. But this shall be told in its place.

From Sphakiá eastwards I searched the coast very carefully with my glasses, for there lay the next route I proposed to take. Here and there one could see what might be a mule track on the rocks, and presently the mountains, which had hitherto fallen abruptly to the sea, dropped down to an apparently alluvial but elevated plain. This plain, along which I later rode, is two to three miles in width and some ten miles in length, and about its centre is the cape called Vatalós. It is the only piece of continuous and moderately low land on all that stretch of coast until you come to Dhybáki and the Lethe flats. The water off Cape Vatalós is very shallow; the skipper



told me there were only three to five fathoms half a mile from shore.

One can quite clearly see the island of Clauda, now called Gavdos, five-and-twenty miles away. Copper is worked there. From Sphakiá we made for Glakiá, which, though nothing but some store-sheds built close to the sea, is a very important place to all that countryside. The produce—oil, wine, olives, raisins—of the lower mountain-villages of Argulés, Rodákino, Seliá, Myrtos, Asómatos, finds its way to Glakiá for carriage to Canea or Candia, whence it is sent abroad to Turkey, Greece, and Alexandria.

Euroclydon\*—St. Paul's wind—maintains its character to this day. This wicked mountain-wind from the north had gradually been increasing in strength, and now raised a sea that was quite nasty for small boats, and the poor fellows engaged in unloading had a very unenviable time. The barrels for the wine are kegs of the largest size, and the oil kegs rather smaller. They say they cannot put oil into the large kegs or the oil would burst them. These huge casks had to be brought

\* On the assumed derivation of this name from an apparent Graeco-Latin compound *Euraquilo*, taken to signify an east north-east wind, Captain Spratt's comments would appear to be very fair criticism. For his whole argument see *Travels and Researches*, II 16. It suffices to say here that, after his great experience of those seas, he observes that in Crete the direction of these northerly winds of summer "is invariably from between north north-west and north true." He points out that had the wind been from the commentators' assumed direction it "would have been fair for sailing to Phoenix from Fair Havens . . . and moreover . . . would have been a more steady wind from that direction than from the north, in consequence of not descending from any high mountain, but crossing the Messara Bay over the lowlands of the Messara valley."

up by the derrick from our hold and lowered over the ship's side into the sea, when they were taken charge of by the boatmen, and were then cleverly lashed together until quite a large raft had been formed of floating kegs, which was then towed ashore. The address the men showed in catching and handling these great barrels in that rough sea quite fascinated me, and I watched them to the very end. But the most awkward things to manage were some big blocks of stone, for millstones, from the island of Melos, celebrated for its millstones from very ancient times. These had to be lowered into boats which were tossing about to such an extent that there was only just one particular fractional moment in their lively movements during which a stone could be checked and lowered into place. It was too rough for the men to stand upon the thwarts, and it really seemed as if bare feet must be smashed, if not a body flattened out.

Euroclydon increased; squall after squall fell from the mountains like a hammer on the sea. At 6.45 the big moon rose stately from the water, half an hour later night fell, and I saw little more of the coast till early on the following morning when we were entering the bay of Hierápetras.

Hitherto we had been so close in under the land that we had seen nothing of the snow; we had caught no glimpse of the long range of the White Mountains, nor even of Mount Ida's top. But now, as we entered the little bay of

Hierápetras, there on our left hand were the heights of Dikte, just flecked with snow.

Hierápetras is in appearance but a commonplace sort of town, lying long and white upon a sandy shore. Behind and about it is a broken plain backed by mountains through which a wide open pass runs out to the northern sea: for this is the narrowest part of the island—it is indeed but eight miles here from sea to sea. I was told that Hierápetras exports annually some 2,000 barrels of oil. My informant, a Cretan, also described it as an exceedingly backward climate; its oranges for instance were not yet ripe. He said it was very cold and wind-swept, and that in winter the gales were bitter and continuous.

From Hierápetras the *S. Nikolas* returned by the way she had come, and I remained with her until we reached Sphakiá. This gave me the opportunity of seeing by daylight that piece of the coast which before we had passed at night.

The voyage was not very eventful until after some five hours steaming we came to “Kalous Limmónes” (κάλοι Λιμνές), or the Fair Havens. Considering the execrable nature of every other haven except Lutró on this coast, no doubt they deserve their name. Yet the anchorage, for want of depth in water, is only fit for small craft, though it is comfortably sheltered from the north, north-west, and west—if indeed that can be described as comfortable or sheltered which is always liable to a pounding from above.



In this anchorage are three rocky islands, one of which is called St. Paul's Island. On the adjacent mainland is, or was, a little chapel dedicated to that Saint. There are three possible entries; we steered in through one and left by another. There is no village at the Fair Havens, but just three houses inhabited by field-guardians (Agro-fulaki). No sign of cultivation is visible from this harbour.

A good many rock-pigeons live in a large cave on the western side of the bay, and these were literally the only birds of any species seen off the western or southern coasts of Crete.

Then we rounded cape Líthinos, and steamed down the gulf of Messará. Presently we lay still off a place called Mátala, which—an unusual thing in Crete—has nearly managed to preserve its ancient name Metallum. A single boat and two or three houses appeared to be the whole of modern Mátala. But the approach pleased me much: all the way from the Fair Havens sand shows itself underlying the red rock, and here at Mátala old forces of water had built up a high barrier of grey sand, and a small modern stream had just cut its way through this as neatly and cleanly as possible, and made its own little cliffs on either hand.

Presently, as we steamed down the coast, the great plain of Messará, the largest and most fertile plain in Crete, began to unfold itself to view, sloping gently up to mountains thirty miles away.



We passed the mouth of the river Elektra (which some say is Lethe, the fabled stream), and I told the skipper and the harbour-master of that Lethe of the lower world, and of the virtue it was held to have, and they listened carefully, receiving it as something they had never heard before.

Then it fell dark. We dropped a bit of freight at Haghía Galini (anciently Suliá), and so stood away for Sphakiá, which we reached long after midnight, and in nearly complete darkness, for the full moon was veiled by an all but total eclipse. It was the 3rd of June.



### PART III.





## MOUNT IDA AND THE NIDHA PLAIN.

**T**HIS Part describes a journey that begins at Sphakiá and ends at Candia. It takes us right through the mountainous backbone of the middle part of Crete and includes Mount Ida and the plain of Nidha, two of the most celebrated places in Cretan tradition.

In order to make the route easy to follow, names of the stopping-places are enclosed in a square. They are as follow : Préveli, Apodhúlo, Ida, and Nidha. Half-way between Nidha and Candia lies the village of Krusónas.

## CHAPTER I.

### SPHAKIÁ TO PRÉVELI.

It was the 4th of June, at the end of the coasting-trip. I was at Sphakiá, in the station of the Civil Guard; horses from Canea were to meet me here to take me to Mount Ida and onwards.

I could not learn in Canea of any Englishman who had travelled at all continuously in the country south of Rétimo Province, that is to say in the province of Hágghios Vasílis. So I thought I would take that route, travelling the length of the province and on to Mount Ida and the Nidha Plain. Once there I could decide whether to go straight on to Candia, or to make a diversion through the plain of Messará.

The "horses" did come—one grey semi-skeleton and one mule. I had just finished my rye-bread, water, and an orange, the only materials for a meal I could assemble at six o'clock in the morning, when at the foot of the stone steps from my sleeping-chamber (the room of the officer commanding, who was absent) I came upon a red-haired youth with a freckled face, a prickly turned-up nose, and for headgear a red handkerchief. He was a Turk (every Mussulman is called a Turk in Crete), his name was Ali, and

he was my muleteer—one of the queerest-looking creatures I have ever come across. There was an expression in his face and in his little screwy eyes that might have stood either for ill-temper or for a humorous view of life, but was undeniably sly. As the event proved, he was a bad and lazy boy, always ready to shirk his duties, cruel to his animals, presuming on his service with an Englishman to insult Christians, quarrelling and making mischief in every village through which we passed ; so that I began by mistrusting him and ended by disliking him heartily. Anyway, there he was, my destined companion for several days.

Our first resting-place was to be Préveli, where the Mayor of Arkádhi had told me there were two monasteries, Préveli Monastery and that of St. John (Hághios Ioannis). The Mayor had pronounced it an eight hours ride, and doubtless it might be made in that time by a rider unencumbered by any baggage, and not careful for the comfort of his horse ; but with our packs and two halts for food and off-saddling by the way, twelve hours exactly had gone by before we found ourselves within the monastery gates ; for we had left at seven in the morning and at seven in the evening to the minute we arrived.

We climbed the hill above Sphakiá, passed the villages of Vráska, Kapsodháso, and Patsianós, and then dropped down among the cornfields near the sea. We crossed a little deep-down stream, and as we rose to the opposite side we

came upon a curious natural object ; for the rocky bank was hollowed out and the material above was supported by a group of fine stalagmitic pillars. As the ground above them was not more than some four feet thick at the thickest—much too thin a layer for the secretion of so great a quantity of soluble salt as these pillars represented—here was direct evidence of the large extent of recent denudation that the surrounding land had undergone. We could find no definite road, and the people working in the cornfields were very grudging in their information, for they resented Ali's rude and overbearing manner of address.

This seaside flat was much burnt up, and there was very little bird-life to be seen, though crested larks rose here and there in the thin oat crops. Near Argulés we went up into the hills, coming down again to the level near the stores of Glakiá, seen before from the ship, and then, after following a little round the bay, rose again into the mountains. Here we lost our way. We climbed and climbed over rough ground and at last came out on a mule-track where an olive-grove was walled about, and a tiny runnel of water, led down from the mountain above for irrigation, glistened in the sun. We off-saddled, and after much trouble got the mule and the grey horse over the wall and into the shade of the olive-trees.

While the water was boiling over a spirit-lamp, I was interested and amused by a swarm of little



delicate wasps. The sun was hot and the elegant little insects were thirsty, and shared the water with some bees belonging to a few hives set under the wall of the olive-garden. These hives were made of pottery. The bees stood on the stones at the edge of the water and sipped from there, but the wasps drank much more prettily, for they settled on the water itself and drank as they went down the stream. The little current ran quickly, and here and there as it passed between two stones it hurried into tiny rapids. I looked to see a wasp caught and carried down one of these, but they were too careful, and always as they felt the current quickening would rise, fly back and settle again upon the water at the head of the open reach over which they had lately voyaged and travel down again.

Ali was over the wall in the shade of the olives, swearing at his animals and pulling up herbage for them, but for some little while he had been strangely quiet, and I supposed that he had fallen asleep. He never cared much for the bread and sardines which was all I had to offer him, and when I went to take him his coffee, there he was sitting like a thrush in a kitchen-midden of his own creating, for it was entirely composed of snail-shells! He much preferred snails to my sardines, and had gathered them out of the wall. Pashley speaks of the snails of Crete as being highly prized in his day in the Levant, and as forming one of the regular exports of the island. They may

still do so, but in any case in Crete, as elsewhere, they are eaten cooked. (*Raw* snails !)

We were now above the village of Seliá, which appeared, as we looked down on it from some distance, to be protected by a fort or block-house and a long advanced wall, though it is possible these may have been intended for carrying water to a mill.

The rest of this day's ride was without particular incident and we reached the village of Préveli at six o'clock ; the monastery was still an hour further on, but at last we came upon its white precincts looking down upon the sea.

Monks have always shown an extraordinary instinct for hitting upon attractive positions for their monasteries, and the monastery of Préveli is no exception to the rule. It stands high up at the head of a long mountain hollow which slopes gradually to the sea. It certainly is most peaceful and beautiful, although in an island of so much loveliness I am not quite sure that I should single it out with Spratt as "the paradise of Crete."

The Prior was away, but several of the monks took the evening air as they sat on the low wall which bounded the monastery court. Below them lay their gardens, in which pomegranates, tall cypresses, and one fine palm-tree grew. The ripple and splash of water came very pleasantly from a runnel made along the top of a high wall, and then the water, falling into a tank of stone, passed

on to irrigate the place of the kitchen crops. Every inch of this was trim, and tended with great care. As I walked about it in the dusk the voice of the Little owl, that faithful adherent to the church, sounded bell-like from some corner of the walls. The monks were kind and hospitable, stabled our animals, and gave us good rooms and comfortable beds. Ali, whose bearing towards the villagers was past all sufferance, knew better than to misbehave himself in a monastery, where his own comforts depended upon a civil tongue.

The country through which we passed this day was everywhere cultivated where cultivation was possible. About Seliá and Myrtos are large patches of olive-trees, and these two villages produce much oil.

Even in early June, Crete is pretty warm in the middle hours of the day, and by far the pleasantest time for moving is the early morning; but the visitor who rests in monasteries will find it difficult to make an early start. When one lies out on the hill-sides in a sleeping-bag, one may rise at daybreak or before, make a cup of coffee, rouse one's boy, saddle-up and be off. But in a monastery one is dependent on the good offices of others, and must bide their time and convenience. On this morning I was out before five, yet was unable to start before eight o'clock. Absolute silence reigned in the monastery, and though I prowled about the precincts, looking

into this corner and that, I could discover no sign of any living being. At half-past six a sleepy-looking servitor appeared, and seemed surprised at my wanting breakfast or showing any desire to be off. But by seven he had made me a welcome breakfast of eggs, rye-bread, and wine.

Then Ali was not forthcoming; the servitor simply said he was sleeping, and this in quite a final way as though he said he was dead. However, we did get off by eight o'clock.



## CHAPTER II.

### PRÉVELI TO APODHULO.

THIS day, owing to Ali's sulkiness and obstinacy, and to the loss of a shoe off one animal and a broken shoe on the other, proved rather trying to my patience, and yet it was a far more interesting day than that which had preceded it—interesting not only for the beauty and variety of its scenery but because for the first time in Crete I came upon volcanic rocks.

Those who adopt this route to Apodhúlo will, on leaving Préveli, first have a beautiful view of the sea and then skirt the edge of a narrow but very fertile valley which lies far below with all its economy open like a map. There are the little squares of irrigation, the green patches of the vineyards, the soft grey-green of olive-planted lands, the circles of the threshing-floors; and a rosy thread running in and out by which the flowering oleanders mark the windings of the valley stream.

We had gradually climbed until we had reached the col of a ridge of mountain of which the highest point, about 3,000 ft., lay to our south-east. This is the mountain marked on the map as Siderotá (the Mountain of Iron), though none of the natives with whom I spoke knew it by that name. On

this col, masses of serpentine had broken out through the beds of the surrounding rock ; in some places it only formed rounded caps, in others, on its northern side, it had poured down the side of the mountain, giving to the area over which it had passed the appearance of an old coal-working. How far the older formation had actually been raised by this agency I was unable to judge, but a little further on, near Ardhákio, we rode over a striking area of ripple-marks which had presumably been formed in quiet water 800 or 1,000 ft. below.

All this country to the east of Sphakiá is remarkable for its absence of sheep or goats, differing in this respect from the corresponding tract on the northern side of the island. Among the very few sheep we did see was one lot of six or seven in charge of a woman who was cutting corn. Not a very brawny woman to look at, she must yet have been possessed of considerable strength. She carried in her left hand a bottle of water and a sickle, and in her right a second sickle with which she worked ; but when the sheep pressed on her, as tame sheep will, transferring her acting sickle to her left hand she seized them one by one in her right hand and flung them from her with as little ado as though they had been kittens.

From Vátos (the "bramble-bush"), always descending, we skirted the northern shoulder of the Iron Mountain. And then about Vrýsis



RIPPLE-MARKS IN HARD STONE: COL OF MT. SIDHEROTÁ.





dropped to the valley and crossed its pretty stream.

This valley of Háchios Vasílis, though narrow, has a distinct charm of its own. In the middle, pink with oleanders and set among olive-trees and little plots of corn, its stream goes hurrying over a rocky bed, and on the one hand lies the long mass of Siderotá, and on the other rises Kédros, crowned with its limestone summit between five and six thousand feet high. Spratt appears to have missed the igneous extrusion at the north-western end of Mount Siderotá, for he does not mark it on his geological map. Nor, curiously enough, does he make any reference to the mountain itself, though he records on his chart 4,590 ft. as its altitude; and yet about Kédros, which is only separated from it by one valley, he has a good deal to say.

I had a lot of trouble this day with my terrible Turk. Finding him ill-treating the grey horse with a piece of pointed iron which he carried, I had taken it from him and had flung it away. Consequent upon this he had sulked all day and had vented his spite upon any unoffending Christian we had passed. Had he not been in the service of an Englishman he would more than once have brought upon himself a sound thrashing at the hands of some of the Cretans he infuriated. And now, when we stopped for food and rest by the river-side near Kúmia, he was for letting the animals feed without removing their packs, and

I had to treat my rebel as a rebel deserves before he would perform this duty. After this I had him better in hand for the rest of the day, though the improvement was not as lasting as I had hoped.

Another and more serious worry was the casting of the animals' shoes : it is a serious matter when your horse loses a shoe in a rocky country far away from any help. I was in constant fear lest the toe either of the horse or the mule, or both, should wear down to the quick and we be left with lamed animals away out in the hills ; but by good fortune this did not occur. We had better food for to-day's meal, for I had brought from the monastery some hard-boiled eggs.

Just beyond our resting-place we left the stream at a point where it turns sight-handed to the sea, and going up into the lower slopes of Kédros, passed Kryavrýsis (the " cold water-spring "), from which there was a beautiful vista right down the river-valley to Cape Melissa and the sea. Then, crossing the Platypótimos, we entered the Eparchia of Amári and came into a country of stone walls ; here a brood of Red-leg partridges (*Caccabis chukar*), and the old birds rose from their dust-bath and scattered away. Close to Apodhúlo the walls, probably for defensive purposes, were set so close together that there was no room for the packs, and we had to shift them on to the backs of the animals before we could pass.

At Apodhúlo we put up at the station of the

Civil Guard. Apodhúlo, which in England would be but a small village, has its own little importance none the less. Municipally it is the chief town of the southern Demos of the Eparchia of Amári, and therefore has a station of the Civil Guard. This detachment consists of a sergeant and some seven or eight men. They have a large district under their patrol, for it runs six English miles in a northerly and five miles in a southerly direction, right down to near Dhybáki on the gulf of Messará; but it is a very thinly-peopled district, including as it does one-half of the backbone of Ida itself.

The sergeant was a very nice and very intelligent man; he was teaching himself French, and could speak a few words in that language. With the greatest kindness he gave up his rooms to me and shared the general sleeping-chamber with his men. They cooked me some eggs, and with these, black-bread and tea I made my evening meal.

My great concern was about the shoeing of our horse and mule, and it seemed possible we might be delayed long over this because the only shoemaker was away at Haghía Galíni, down by the sea.



## CHAPTER III.

### APODHÚLO TO MOUNT IDA.

IT is the experience of every traveller that certain days stand out with a distinctive clearness, a separate character, that removes them altogether from the general background. The rest may fade, and do fade, but these persist—an element of memory itself. And of the days I spent in Crete two or three are thus indelible, those of which Kurnás was the centre, and those concerned with the mountain of Ida and with the Nidha Plain. These impressions are quite independent of anything achieved, indeed there is no room for heroic achievement in this little island—nothing that good health and moderate activity may not accomplish with comparative ease. The journey up Mount Ida is no “ascent,” as alpine climbers use that word; it is merely a walk involving steep gradients. No, it was not because we went up Ida, but rather the change and beauty of the scenes, the new vegetation, the bird-life, the plant-life, the variety of the rocks that built up a lasting picture. If anything else contributed to that end it must have lain in the temper of the moment; we all know that there are days when one’s alertness and receptivity are at their best, and one’s spirits most in accord with natural influences.



I received in the morning the welcome news that a man had been found to shoe our animals, so it only remained to settle our route; and after a breakfast of tea and eggs, the Civil Guard and the villagers had a consultation. There are two possible routes to Ida from Apodhúlo, one by way of Kurútes, one by way of Kamáres. The question was which was the easier for our pack animals, and the decision was in favour of the Kurútes route.

The sergeant had found us a guide who knew the way by Kurútes well; his name was Ioannis, and he was commonly known as Ianni (pronounced Yanni) or, as we should say, Johnny. He was one of the most thoughtful, most pleasant, and most loyal companions I have ever come across in any of my travels.

The sergeant and two of his men came with us until near Kurútes. Kurútes, he told me, was the village of the strong men; it was, he said, celebrated throughout Crete for the great physical strength of its inhabitants. At a point of diverging paths we separated — he went on to Kurútes on his official beat, we struck off into a mountain path which, level at first, rapidly ascended.

The first approach to the base of the Ida summit is up a gorge, very steep and difficult for horses. Many of the rocks of this gorge are of conglomerate, and the trees are nearly all ilex. This was a welcome change, for I had as yet seen

no ilex in the north of Crete. The mule managed this climb pretty well, but it was a very tough struggle for the poor grey pack-horse, and when I saw him plunging from rock to rock and climbing the great rough natural steps that lay above him, I thought he had reached the limit of what a horse could do; but in this I was greatly mistaken.

We had left Apodhúlo at 7 a.m., and at 10.30 came out at the top of the gorge on to an open and comparatively level piece of ground where there was a spring and a drinking-trough. Here we made a halt for three hours, which was pleasant for ourselves and very necessary for our hard-worked beasts.

In summer a good many sheep are pastured on the slopes of Ida, and this spring is the regular halting-place for the shepherds on their way backwards and forwards, and for those who visit them from time to time and carry up their supplies.

The spring comes welling out of a cleft in the rock, and its water, after filling a deep hollow for the use of men, passes on into several large troughs hollowed from the trunks of ilex trees, from which the flocks drink. Where it pours out over the soil it has induced a fine crop of grasses, which our animals greedily attacked. Over the spring flourishes a walnut-tree with its grateful shade.

The view from this spot is very beautiful:



IANNI (LEFT), BOY AND ALI AT THE SPRING.





in the foreground is a clearing, then the heavy green of many ilex-trees covering every shoulder and filling every hollow of the immediate mountain, then the great blue gap of the Amári Valley, and beyond this to the eastward the noble outline of Mount Kédros, backed by a ridge of the Iron Mountain, and to the south a lower mountain, Mélabes, and then the blue haze of the sea.

While we were there a boy, bare-legged and slippered, came up on his donkey with a bundle of food and a wine-skin for his father in the hills. He remained with us till we left, and promised to guide us by the best track. But the gay little donkey and light-weight rider went so much faster than we could follow that very soon they were lost to sight.

The sun was very hot and Ali followed my example and slept in the shade; not so Ianni, who removing from his head his black silk handkerchief, spread it over his face as he lay flat on his back on the hottest rock he could find. I was able to make myself some tea, but provisions were short and I was glad to share the olives and black-bread that Ianni produced from his girdle. The bread was as hard as a brick, but by the customary country plan of holding it in the spring-water till soaked, we made it possible to eat.

The splendid panorama, the purling of the water, the shade of the walnut, and the cheery song of the chaffinch, made it a pleasant place

which we were reluctant to leave for another struggle over the heated rocks, and I think both my followers regarded me as either mad or devoid of feeling when at the end of three hours I gave the word to saddle-up.

It is a trite remark that there is blessing in the provision that a man does not ever know exactly what lies before him in the course of any day. Had I known the character of the ground we had now to traverse, nothing would have induced me to take the pack-horse there; and so I should have missed seeing a piece of the country of the very greatest interest.

At first the way was easy enough, for we skirted the side of a mountain-spur by a sound and fairly well-marked track. But presently the path disappeared—that side of the ravine on which we were moving had been recently swept by great falls of stone; there they lay in front of us, wide slopes of talus at so acute an angle that it seemed as if but a small displacement and the avalanche would be set going again. They had to be crossed. There are few more trying places for a man to cross than such a steep and recent talus slope, where the tumbled fragments have scarcely had time to settle to a final position of rest. Imagine, therefore, what it was for a laden horse. I need not dwell upon the troubles of our poor beast which were so distressing at the time; it is sufficient to say that had I been alone I could never have brought him across, for he quite lost

heart, and but for Ianni his slips and slides and plunges must have toppled him down the slope. Ali was of little use, but our deep-chested, powerful and always cheery Ianni performed wonders with that horse, pulling him here, pushing him there, shoving him up with his shoulders from below, and calling encouragement all the while.

Separated from each other by dense strips of ilex, there were repeated stretches of these talus slopes, and it was indeed a relief when we had left the last behind, and passing up the dry bed of a winter-torrent came out at last on to open rolling ground that lay at the foot of the summit itself.

But one tree grew on this expanse—just one old stunted ilex standing sturdily in the wind; the cushion-shaped plants of the spiny rest-harrow (*ononis*) were the only other visible vegetation. This may be regarded as the limit of the ilex, 6,000 ft.; its place is then taken by berberis. But before touching upon the plant-life of this region, perhaps it will be better to bring the story of our day's journey to an end. For we are now on the shoulder of Ida itself.



## CHAPTER IV.

### IDA.

THE plateau, then, on which we found ourselves was bare, as I have said. It was a tract of stony ground lying all along the side of Ida's final point. There was not much continuous rock to be seen at the first glance—all the surface seemed broken up into pieces of limestone more or less cubical in shape. These pieces varied in size from large blocks (like those shown in the picture of the shepherd's hut) to little bits an inch across, but all with, roughly, the same characteristic shape. These blocks lay upon a very thin bed of red-coloured gravel-like earth, which puzzled me at first, but later I found it but the *débris* or *detritus* of disintegrated blocks. Here and there were beautiful limestone crystals, some of them of great size. This red earth often ran quite free of stones in little narrow winding lengths that looked like little paths. On coming to an easy place after a hard struggle, we had sometimes been able to set the mule free and let him follow the horse, but here, when left alone to follow on, he would always take one of those false paths which landed him in impossible positions, so that we had to lead him after all.





SHEPHERDS ON IDA. FOLD IN TROUSERS FORMS BREAD AND OLIVES BAG.



Presently we came upon a lad with his donkey, who was digging snow to carry down to Candia. Then two shepherds hailed us and we made our way to them. They were picturesque fellows, and had that look of wildness which anyone might acquire who should live up there. They were tending their flock of white and black-horned sheep. The hut in which they lived (shown in the photograph) was roughly built of the broken rocks. As a result of the light fare on which we had subsisted on this journey, Ianni and Ali were anxious to get some more invigorating food, and the shepherds agreed to let us have a sheep for the price of five francs ; as they had been kind in letting me photograph them and their dwelling I gave them six (five shillings for a sheep !). So there was a sheep to be caught. Creeping stealthily behind the flock one of the shepherds had very quietly seized on one with crook and hand. But it proved to be a poor thin creature, and Ianni, holding it out in one hand at arm's length, contemptuously refused to accept a beast of such inferior quality. After a well sustained and animated argument, shouted at the top of his voice by either disputant, Ianni gained his point and tossed away the sheep. The three men walked slowly round and round the flock for some little time, the shepherd pointing out first one and then another which he hoped might serve our turn. But Ianni declining this and declining that, the shepherd grew impatient and caught

a second sheep, but this one also Ianni rejected with scorn. The shepherd flung the sheep from him and walked away in a rage, and the two men, standing some twenty or thirty paces apart, bombarded each other with epithets. It seemed we had reached a hopeless deadlock, and taking my trowel and collecting-gun I strolled up by the edge of the snow on to a hill above.

But nothing is final with bargainers, and looking back I saw that operations were again on foot and that Ianni had set his desires upon a certain black sheep which the shepherd and he, with Ali in reserve, were endeavouring to secure. But the flock had by now become scared, and this time they had a more difficult task. After repeated failures to catch the black sheep, they managed at length to separate it from its companions, whereupon the creature took off at a gallop right up a long slope of solid snow. On this it could travel faster than its pursuers, and Ianni, after vainly chasing it and finding he was losing ground, had nothing for it but to return and await the sheep's pleasure to rejoin its companions. At this point I lost sight of the spot, but the manoeuvres were eventually successful, for when I returned an hour later or thereabouts the black sheep was roasting by the fire.

It was very pleasant climbing up the hill. By the edge of the melting snow the ground was starred with yellow-edged white crocus (*C. sieberi*) and with blue and white chionodoxa, and the



burnt-up rocky ground above had its own interesting and very prickly flora. One sight alone would have rewarded a naturalist. I was watching a pair of Griffon-vultures (*Gyps fulvus*) who were soaring round a few yards above my head when, sailing along a little higher, turning its head to right and left, came a Lämmergeyer or bearded vulture (*Gypaetus barbatus*). One knows it at once by its general character and particularly by the long and wedge-shaped tail. Then it came so close that I could quite clearly see the separated feathers in its beard, the form of the beak and the cruel-looking eye. The sclerotic or white-of-the-eye in the Lämmergeyer is red, and it is this and the overhanging eyebrow that give to the face its cruel appearance. I watched this bird for a long while; and now having seen the largest bird in Crete, I was about to see the smallest.

I was still sitting on a boulder looking at the Lämmergeyer when I heard the song of a wren, and there sure enough was the little bird flying from one bit of rock to another. Most anxious to secure this specimen I followed it as well as I could over the boulder-strewn ground, but a bird in such environment is hard to see and I never got a chance for a shot. I felt sure it was cornered, for it had gone down into the crevice between a scree of rock and the foot of a snow-drift, and it seemed it must return by the way it went. I waited patiently but it never came out again, and when with much difficulty I got down into the

crevice I saw there was just a tiny crack through which such a mouse-like bird might slip. It had gone out, in short, by the back door, while I had been stupidly waiting at the front. With the exception of Alpine Accentors (*A. collaris*), which were feeding their young, I saw no other birds just then.

The place where the black sheep was roasting was a little walled compound—called by the Cretans a “mandri”—in which a flock could be collected on occasion ; in one corner was a stone-built room where the shepherds sleep. As I did not care to eat mutton which I had so lately seen running about, I took my black bread and a little tin of potted meat up to a convenient place behind a big boulder and made my supper there. Later on I carried the sleeping-bag there also, for in spite of Ianni’s expostulations I could not face the prospect of a night in their stifling quarters. Ianni insisted that I should be robbed ; “very bad men here,” he said, and explained by pantomime how they came creeping upon their victims in the dead of night. However, these fears were not realised. It seemed to me all but impossible for anyone to move unheard over that loose and rocky surface. Once indeed I did hear footsteps, and heaved a stone in that direction just to show I was awake ; but pretty soon I dropped asleep, and slept till light came over the mountains once again.

At six o’clock the following morning Ianni

and I went to the top of Ida ; it took us an hour and three-quarters of steady climbing to get there. One naturally uses the expression " climbing " when speaking of a mountain, but there is no actual climbing in this ascent ; there is no place, after the first few hundred feet, where it is really necessary to make use of one's hands. Seen from a distance, the sides of Ida seem perfectly smooth, but in fact are very far from being so. The first five hundred feet is the stiffest part ; here the ascent is steep, and you go up a series of high natural steps made by faults in the stone.

The route then passes over three natural ridges, their hollows filled with the broken blocks of stone already noticed as lying on the lower slopes, their backbones formed by the ends of the vertical pieces of weathered rock not yet broken off. The last piece of Ida, the cone of the summit, was much smoother and less broken up ; it was as if some gigantic broom had swept it downwards from its top, scattering its broken pieces to the lower slopes. That broom is the wind.

After crossing these ridges we came to the rounded incline that leads to the foot of the summit. Here the ground was again covered by the rocky débris, among which, where the ground was firm enough for their rooting, were round cushions of the spiny rest-harrow.

The actual summit of Ida is a blunted cone with rounded sides. Most of the summit was clear of snow, but on the southern and western



sides lay some large melting drifts. The loose stones that pave this cone are laid down flat by the wind. The summit, 8,193 feet high, is now called Stavros, and Ida itself by the sixteenth century (Belon) had already received its present name of Psiloriti or 'Ypsiloriti.

In spite of the morning haze the view from the summit was very beautiful. To the west the peaks of the White Mountains seemed about on the level where we stood, as in fact they were. We could just see Candia, guess at Rétimo, and trace the valley of the Platypotamos almost to its end. North and south lay the misty sea.

On the tip-top of Ida is a "monastery": every church in Crete is called a monastery. This particular one is a tiny little building made very strong against the wind; it is built on the same principle as the mountain-shepherds' huts—of slabs of stone laid one upon the other. At one point only has any mortar been used, just at the springing of the chancel dome. There were tapers inside for the devotees to burn before the ikons, but as neither Ianni nor I had any money in our pockets we were, much to his disappointment, unable to buy one. I gathered from him that a priest comes once a year to hold a service in this church. The church is surrounded by a walled enclosure that also includes a well of excellent ice-cold water, which we reached by means of an earthenware bottle that Ianni lowered with his sash; we drank it from a little rusty mug. Beyond





SUMMIT OF MT. IDA : SOUTHERN SIDE. CHAPEL ON TOP.



the enclosure a circle had been cleared of stones, and here, said Ianni, once a year the people danced.

Spratt tells how, as he went up to Ida, he saw forty ibex, and that a group were actually browsing on the summit; but that was over fifty years ago. I scanned the rocks in every direction in vain. There were, indeed, some footprints which Ianni declared were those of *agrimia* (ibex), but I had my doubts. Ibex do still exist, according to report, in some of the inaccessible parts of the range, but I think Ida itself is now too much disturbed by shepherds for ibex to come there much at this time of year.

To sum up the superficial geology of Ida. The cone, which may be 150 ft. high, presents a surface in some places of the solid rock-bed, in others of roughly rectangular blocks of stone lying upon their sides, and forming a rough pavement. The general result of this is that the surface of the cone of Ida is smooth. The calcareous rock is mixed with calc-schists and white crystalline pieces enclosing nodules of "whetstone"; on this I sharpened my knife. In descending, as soon as the base of the cone is reached the character of the ground changes. Here one is surrounded by a mass of tumbled rocks lying tilted at various angles. The rocks lie upon a bed of reddish gravelly earth about one inch in depth, not deeper in any place than two inches, as far as I could discover. This is derived from the calc-schists, which often give a red colour to the limestone-rock where broken.

Various plains in Crete—for instance, that in which Kritsa lies—are formed of red earth that is similar in origin. This detritus, washed down, forms also the plain of Nidha.

I was delighted to find a yellow alyssum (*A. idaeum*), a forget-me-not (*Myosotis idaea*), and a corydalis (*C. uniflora*) as I came down the mountain.



## CHAPTER V.

### DOWN TO THE NIDHA PLAIN.

To be in Crete and not to see its mountain-plains would be for anyone a pity, but for him who goes to Crete to study its natural features it would be impossible.

All through the winter and until the middle or end of April the plain of Nidha, like that of Hómalo, is a desolation: just as no plough turns the furrow in the one, so on the other no flocks feed, no shepherds call from hill to hill; the plain is full of snow. But with the passing of the spring the snow has disappeared, drained away in its melting through great underground caverns which lead into channels underneath and far away below, till it makes the springs which run into the sea. Then the shepherds bring up the flocks.

It is easy, I understand, to reach Nidha from the north-eastern slopes of Ida mountain: the descent by this way is gradual, as the map will show. But our camp was on the other, the south-western side, and in order to hit this route we should have had to take the horses right across the backbone of the ridge with a long journey in front of them, and Ianni thought he could do

better. But I now believe that he followed the more difficult plan.

Soon after midday we struck camp and started for the plain. The journey was quite easy for a time. Going south-east we traversed a pass so that the main mass of Ida now lay on our other hand, and followed a narrow line of level grass-land under a high escarpment. The way was made interesting by birds and plants: scented yellow violets (*Viola fragrans*) flowered by the path, and choughs flew talking overhead. All the choughs I saw in Crete were Cornish Choughs (*Pyrrhocorax graculus*), but Miss Bate a few years before had found Alpine Choughs (*P. alpinus*) nesting in Kamáres Cave.

We came upon two shepherds' huts, and entered one of them. It was much more roomy than those seen before, for it was in fact a walled-in cave. Roof and sides of the cave were black with smoke of the fire, nor was there any outlet for the smoke except by the entrance. Above the embers swung a great iron pot. Various articles, such as onions and clothing, hung upon the walls. There were two shepherds in this cave, grimy and unkempt but very kindly fellows, who offered us black bread and onions, and fetched out of a dark corner a large calabash of milk; but as the milk had that unpleasant twang which sheep's milk gets when boiled I asked for water instead. To my surprise one of the shepherds instantly disappeared through the floor of

the cave. He was absent for some few minutes but reappeared with a bottle of clear and cold water. On my asking where and how he kept this water, he lit a lamp and bid me follow him. He then lowered himself quickly into what seemed at first to be the mouth of a well ; but seeing that he was standing waiting for me with the lamp in his hand, with some little difficulty (as the entrance was but small and the first drop rather steep) I lowered myself down to his level. We were in an underground passage. The shepherd moved on in front, lighting my way down steps and slides of rock. We were always in a stooping position, and at one place we had to lie on our backs and so slip for a yard or two. Then I heard the sound of dripping water, and presently my guide said "Stop!" He climbed down a sharp wall of rock, and there in the lamplight he was standing by a pool of water into which drops from its cave walls trickled and fell. He was so familiar with the way to this strange pool that, going by himself, he had gone without a light. I found the return journey rather awkward, though to the shepherd, from long practice, it was easy enough.

When we had got back to the cave, one of the men took down from the wall a musical instrument which they call a lyra, and on this both he and Ianni played curious wild reeling tunes, and Ianni danced a little as he played. This lyra is the characteristic shepherd's instrument in Crete, and they make them for themselves. A lyra



is much like a mandolin, but with a smaller belly ; it is not played with a plectrum but with a bow, and the bow is set with little bells. A little pig frisked about a kitchen-midden outside this cave.

Soon after leaving our shepherd-friends we came to a narrow ravine and went along its western edge. On the opposite side the rocks resembled a series of arches. These afford a key to the volcanic origin of the system of great folds on the face of the mountains that look down on Nidha, to be presently described. This ravine brought us out on to that side of the mountain-range which lies on the south-east of Nidha, and forms on that side its boundary-wall ; and now, looking down, we could distinguish level land far below us, which Ianni said was the Nidha Plain. The track we had been following does not go down at all to Nidha, but is a shepherds' trail from the village of Kamáres only. There came therefore a time when the choice lay before us either of following the track right on to Kamáres, and thence back to Nidha by a pass between the two, or of tacking right down to Nidha by the steep and trackless mountain-face. Ianni halted his party while he thought this out. Just then there came upon the air a long-drawn mountain-voice : it was the *tilolalíd*.\* We were being hailed by a shepherd on a neighbouring height.

\* *τηλολαλία*, talking far, *τηλοσκοπία*, seeing far—words used for mountain voice and mountain vision.



I suppose he was a mile away, for I could only just distinguish a figure on a distant rock. Ianni and he sustained a long conversation in the sing-song manner of all mountaineers. In order to show when a remark is finished, the final syllable is prolonged like the howl of a wolf. I cannot say what was the actual distance between us, but I was repeatedly astonished in Crete as elsewhere by the immense distance voices would travel in the mountains.

The upshot of Ianni's inquiries was his decision to go straight down the mountain to Nidha, but I think that, could he have foreseen his difficulties, he would have taken the longer but more easy route. The trouble, of course, was the pack-horse.

This side of the mountain that looks on Nidha is quite different from anything I saw elsewhere in Crete. The whole face of the mountain presents a series of great rounded swellings, or anticlinal curves. There are no ravines running down this face: the grooves between the rounded ridges are only shallow troughs. Just as on the ridges of Ida, so here the backbone of a ridge was of solid rock, more or less broken up, but the hollows were filled by rocky *débris*—a mass of broken rocks of varying size. This was the character of the mountain-face down which we had to bring a pack-horse and mule. The mule, who was only lightly laden, managed it fairly easily, but the poor old horse who carried the heavier things—a hold-all, a bag, a food-box,

sleeping-bag and ground-sheet — had a woeful time.

We zigzagged about as best we could to lessen the steepness of the descent, but often the horse could only go a step at a time, in one direction, and had then to be pulled back almost on to his haunches and slewed round so as to make the next plunge in the opposite direction. Then he had to jump off ledges, and this threw so much weight upon his apology for breeching, that presently it broke and the load slipped on to his neck. The pack could not be replaced without taking it all to pieces and reloading ; the breeching was repaired with string. Often we were in such a plight that we stopped for minutes together, seeing no way out, and having to exert ourselves to move what stones we could to make a place for the horse's feet. To add to Ianni's trouble, the wretch Ali, who hated his job, struck work and, placing himself safely out of reach, spent his time in vilifying all Christians with every abuse his tongue could command. However, even the descent to Nidha came to an end at last, and at sundown we entered the plain by a very narrow cutting between two rocks, in which the hold-all was torn open and its contents—bread, candles and what not—all scattered about.

## CHAPTER VI.

### NIDHA.

THE south-western end of the Nidha Plain is not smooth; on the contrary it is formed of various masses of rock with only here and there a way between them. These occupy about a quarter of the plain; the rest is flat pasturage.

Our halting-place was by a spring, which filled a pool against the rock, and then ran across the grass to a row of long drinking troughs, set there for the Nidha flocks. Not far from the spring is a terrace and a cave, and thither I carried my kit, made myself some tea, and looked out on the prospect; it was worth looking at. Just by the cave grew an old and twisted maple, and all around was rock; behind rose the folded face of the mountain down which we had come, immediately below lay the little grass patch round the spring, and then came a confusion of rock, not tumbled rocks, but rocks *in situ*. None, at a guess, were more than ten or twelve feet high, but they were very different in form, for while some were flat, like terraces and tables, others were long and rounded, like the bodies of great stone whales lying in the bushes and the grass. Beyond these in the distance it was just possible to make out,



or rather to guess at, a flat which was the smoothness of the open pasture. A long streak of snow ran down the side of the high Ida range on the left, and, though the top of Ida herself was out of sight, the sun which had left us still lit this high shoulder and turned the snow to pink. The foreground of the picture was completed by the blue smoke of the fire which the men had lit in the hollow below me, and by the mule and the grey pack-horse tethered in the bushes, who rolled and fed and rested from their labours. It was cold at this altitude, and presently Ianni and Ali came up for something warm to sleep in and went off well pleased with a thick coat and a blanket.

So I lay in my cave till the stars came out, and the badgers who lived in the blackness behind me grunted and moved uneasily in their burrows. They could just have left the cave without actually passing over me, but, unless they had a back-door of which I did not know, I think my presence kept them prisoners all that night. The bats were rather a trouble at first, but we had had a strenuous day, and I soon ceased to notice them and was asleep.

With the morning sun I was recalled to consciousness by a sudden burst of song—the familiar song of a little English bird, yet with a certain difference of phrasing; a wren was singing in the top of the old maple, then it dropped lower and was very busy among the twigs. This wren proved to be indistinguishable from our British



wren; it had not been obtained before in Crete. Presently the cry of choughs sounded overhead, and parties of these birds were seen going off to their feeding-grounds. As they cleared the edge of the high rocks they would fall down through the air like jackdaws, and then, when close above our heads, right themselves and continue their flight. Their scarlet bills were very noticeable.

Soon after the sun was up, shepherds began to call to one another from hill to hill and the flocks began to gather at the spring. It was pretty to see them coming in from all around, the old bell-goats leading and the kids bounding over the rocks. These shepherds were much pleasanter than those on Ida, and watched my bird-skinning with great interest.

Nidha Plain was full of life. Pipits ran about the ground, chats and wheatears hawked from rock to bush, and blue butterflies swarmed everywhere. This butterfly, of which specimens were brought home by Miss Dorothea Bate in 1904, is allied to our Holly Blue (*Cyaniris argiolus*), and was first described by Freyer (1845) as *Aricia psylorita*.

Interesting as the plain of Nidha is to the naturalist, it is scarcely necessary to add that its mythological tradition is its great claim to the interest of every visitor. The story is well known: when Rhea on Dikte bore the infant Zeus, she stood in deadly fear of Chronos his father,

lest he should eat him up, for Time the Devourer passes nothing by. So she carried off her babe to Ida, at whose foot she hid him, in the cave on Nidha Plain. This cave—the cave of Zeus—is in the north-western corner of the plain; the story of its exploration will be found in the pages of the records of the British School at Athens.

Near the cave is a small chapel or “monastery,” built in rather a more finished manner than that on Ida. I walked round its outer wall, but did not enter or examine it very carefully. I was sorry for this afterwards, but perhaps the natural features, the inherent interest and beauty of Nidha tended to make one impatient of any sign of human work. The sound of the chapel bell, rung by some devoted shepherd, came along the plain to my cave very prettily at even; the “bell” was of flat iron, as described by Tournefort.\*

The Plain of Nidha is quite different from Hómalo. Hómalo, 3,785 ft. in altitude, with its stony yet cultivated surface, its growth of hawthorn and wild pear, has already been described. Nidha is some 4,550 ft. in height, or about 1,200 ft. higher than Hómalo, and Nidha is a pasture, and a pasture of the finest kind. In that month of June it was a velvet mat of close-cropped grasses finer than those of a sheep-fed down. There was at least one katavothron, a

\* *Voyage into the Levant*, I 123: “Since the Turks have forbidden them (the Greeks) bells, they hang up plates of iron and chime on them with little iron hammers.”





SOUTHERN FLANK OF IDA, WITH NIDHA PLAIN IN DISTANCE.



mighty hole in the ground, through which, as through a giant funnel, the melted snow could drain away. When you climbed down into the cool chamber which formed the mouth of the funnel, it was hung all about with white saxifrage, which because of the semi-darkness had developed flowers and leaves of abnormal expanse and long unusual stalks. As it took us thirty-five minutes to ride at walking pace from end to end of the plain, I put its length roughly at one and a half miles. About half of this is rocky, the remainder is smooth and apparently dead-flat—as flat as Lord's Cricket Ground, and covered with grass so thick and close that it might almost have been mown with a lawn-mower. Nidha is not circular like Hómalo, its longer axis lies from about S.SW. to N.NE., its secondary axis from about E.NE. to W.SW. The soil of the grassy part appears to be of considerable depth, and is of a rich reddish-yellow colour—a sandy gravel covered by a loamy crust formed by roots and decayed vegetation.

This subsoil is evidently derived from the washings of the disintegrated rocks above; it is exactly the same to all appearance as that of the gravel paths and patches already mentioned as a feature of the mountain of Ida. There are evidences of volcanic action here which are altogether wanting in the case of Hómalo. Not only is the mountain-face on the south-west of the plain—that is to say, the face which fronts north-east—

thrown, as has been said, into great rounded swellings, but pieces of igneous rock (serpentine) are lying here and there near the monastery at the north-eastern end of the plain.\* Although, then, Ida itself cannot be said to be the cone of a volcanic mountain, properly so called, nor the plain of Nidha to have been directly formed by volcanic agency (for like Hómalo it appears to be the product of water and wind), none the less there are evidences here of some eruption which seems to have no counterpart in the case of Hómalo.

Good Ianni left me at Nidha ; he said he really could not stand Ali any longer ; nor could I wonder at it, for in truth the lad was a finished imp ; so he left to return to his home in Apodhúlo, while a kindly, nice old shepherd took his place to lead us to Candia by way of the village of Krusónas. This is the usual route taken by those who go from Candia to see Mount Ida, so I will not dwell upon it here, but there is much to interest the naturalist by the way. One passes several small plains—each a Nidha in little—and these are instructive as showing how the Nidha Plain was formed.

Sitting at the door of my cave in the mornings it seemed to me that Nidha in the peace of its detachment, with its sound of sheep-bells, its song

\* As Spratt points out, the great steepness of this southern and south-western side of the mountain is due to the fact that it is the upraised side. On the northern and north-eastern side, he says, " the face descends in a series of ridges and terraces, like so many steps."

of birds, its flowers, its blue butterflies, its vibrating light, was a singularly beautiful spot.

A delightful halting-place on the last high plateau immediately above Krusónas is Zomíto Spring, and here grew the largest maple that I saw, its butt divided into three main stems. I measured it as well as I could with my walking-stick collecting-gun, which is three feet long. My gun went four times to its girth, which would make it about twelve feet round.





## PART IV.



## CANDIA TO SITÍA.

**T**HIS journey all lies to the east of Candia.

It takes us, to begin with, right across the island south-east to the village of Kalámi, then north-east to Kritsa, then along the gulf of Mirabella and so straggles away through eastern Crete to another northern seaport called Sitía. This crooked route was dictated by the wish to see the pine-forests of Crete, and these are found in no other part of the island. The forests of the eastern half of central Crete are ilex, the forests of western Crete are cypress.

The names of the stopping places are Thrapsanó, Kalámi, Kritsa, Psýkro, Turtúlus, and then Sitía.

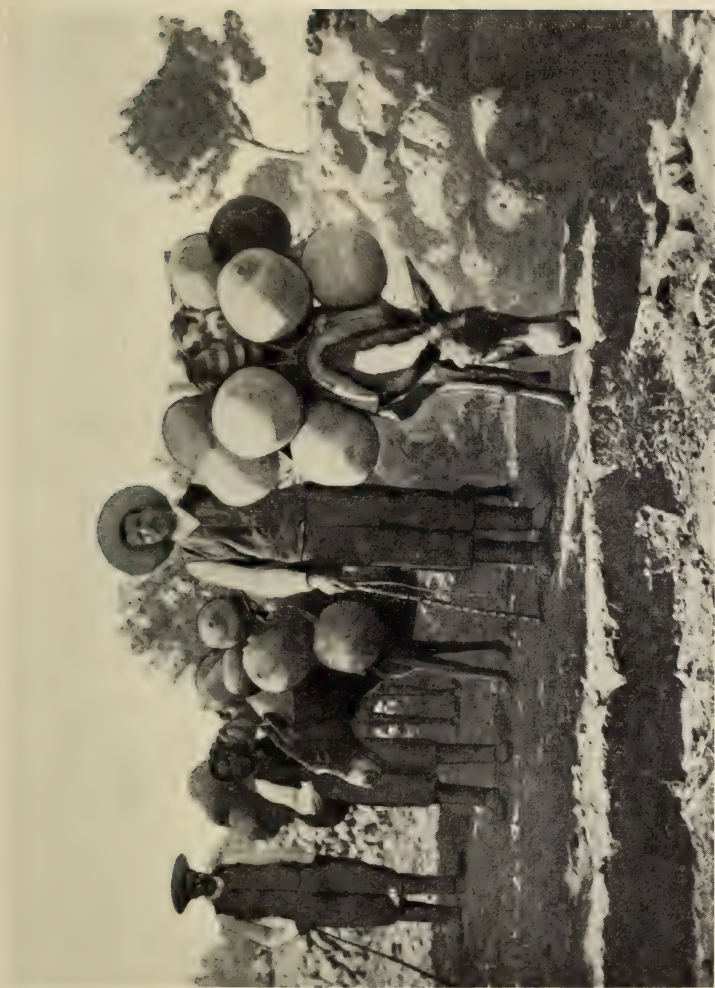
## CHAPTER I.

### TO KALÁMI.

THOSE who wish to see something of the forests of Crete—and the character and distribution of these is always interesting—could scarcely do better than make the journey which I am about to describe.

I had with me a Cretan boy named Demetrio. Each camp-boy I employed had his own characteristics, and Demetrio had his. Though a great improvement upon Ali the Turk (that imp of sin), he was slack and dreamy, and would fall asleep in his saddle. He never by any chance made proper arrangements for foddering his horses: always said there was no fodder to be had, but he was going to buy it at the next village, which he never did. The consequence was this, that instead of being able to camp where we pleased, we had to press on till we came to a village of some importance, which, to a great extent, detracted from the pleasure of this particular journey. At the same time Demetrio had certain qualities unlooked for in a mule-boy, though they happened to be qualities I did not want. He was eternally trying to valet me, pulling out





THRAPSANO POTTERY.



bits of my belongings and arranging them, as he thought, to suit my taste, and trying to re-pack them when I wasn't looking—so that he rather got on my nerves. Poor Demetrio! it was all done in kindness of intention, and he would have made a fairly efficient lady's maid. We had a grey mare, and a chestnut horse with white stockings.

There is a suprisingly good road as far as Háchios Paraskias, but here it either diverges or stops, and we took to the mule-trails.

Soon after leaving Candia one passes Knossos, where Sir Arthur Evans does his wonderful work. It lies just within the province of Temenos, the same province in which Iuktás is. Just beyond Knossos you leave the Iuktás and Arkhánas roads, and holding to the left presently pass into the province of Pediádha and cross the Karteros stream.

I had intended to make the village of Embaro, but we had set out so late in the day that we could only reach Thrapsanó, where I slept in a stable-loft. Tournefort speaks of "Thrapsanó, where they drive a great Trade in Earthen Pots, Pans, and huge Cruses for Oil."\* This industry has only recently been moved from Thrapsanó to another village not far off. These huge cruses or jars (like those in *Ali Baba and the Forty Thieves*) have not altered in size or shape since the time of Minos: they are identical in these particulars with the

\* *Voyage into the Levant*, I 47.

terracotta stone-jars of the palace of Knossos. It is most interesting to see these immense jars in the making: there was quite a small place by the side of the road where I watched these men at work. How they turned out so great a vessel of modelled clay, and so symmetrically, was to me a marvel; each was baked separately in a brush-wood fire.

This piece of the journey is not interesting: the formation is of sand and clay, and the land is cultivated; still I heard and saw a Golden Oriole singing in a tree, and had a distant view of the north-west side of the range that skirts the Lasithi Plain when it was all dark purple in the half-light, with shepherds' fires or forest-fires glowing on the top.

The next day's journey took us to Kalámi.

It was now mid-June and the sun began to get fairly hot, and as each day we were astir from dawn to dark, and actually travelling through twelve hours out of the twenty-four, water became our most important need.

At half-past nine in the morning, two and a half hours from Thrapsanó, we came to a pleasant spring by a house and a large plane-tree. It was delightful, and I stayed there half an hour.

The water came through a small opening in a ledge of rock, fell into a circular stone basin intended for the use of human beings, and passed on into the long drinking-trough for the animals. As the water was always running, and the trough



during a great part of the day was in the shade, there could have been little change in freshness or in temperature. Yet neither sheep nor goats liked drinking from the trough, but each shouldered the other away and pushed in to take the water from the ledge of rock over which it ran into the basin, or put its nose right up into the hole through which the water came. This is a point with little in it, but when one is travelling alone day after day one notices these trivial things. Were the subject of general interest, one might easily devote a whole chapter to the characters of animals in Crete—from the amazing mule, who not only has a leg at each corner like other animals, but carries a spare one for the faces of cliffs, down to the reasonable pig. A loose mule is devilry incarnate; a single goat must be led with a string, for a goat is quite conscienceless and irresponsible; but a pig will always follow closely, and has no nerves.

About two miles beyond this spring is Embaro, a poor little mountain-village to which one climbs after crossing a small tributary of the Katerakter stream. From various points in this day's journey you look down into the eastern end of the great plain of Messará.

A feature of all these mountain-villages, and a very welcome one at this time of year, is the mulberry-tree. The people do not seem to care at all for this fruit, which generally falls to be eaten by the pigs; so that nobody minds

if, as you ride hot and thirsty into a village, you pull up your horse under one of these old trees and standing in your stirrups pick the welcome fruit. Mulberries in Crete are larger than with us in England and are certainly of a finer flavour. I sometimes sent the bare-legged children up the trees for fruit; I did this here in Embaro, where the children were pretty and quaint. As a rule the children give the colour to the village, for the women are almost always dressed in rather a sombre way, even though the black skirt be looped up to show a coloured petticoat. On their heads the women have the black *mandilia*, a handkerchief worn square across the forehead and falling behind in a point. But the little girls have bright-coloured cotton frocks, and their hair is worn in a long pig-tail plait.

Soon after leaving Embaro, between that village and Vianó you come to a road which is remarkable as being perhaps the only long bit of level mountain-road in Crete. It is a new road, and cleverly engineered; the view from it is delightful. Then the road sinks a little, and takes you over the border into the province of Vianó and up to the village of that name. If the maps are correct this would be a corruption of the old name Biennos, though I do not know that there are any remains connected with the older name.

This village has its mayor, and also a station of the Civil Guard. At the corner of the main street is the village school, and the children were

just going back to work in their large cool school-room when we arrived.

I remember this 16th of June as one of the hottest days I ever felt in Crete; I remember the little eating-room and how it swarmed with flies which, though the Cretans did not seem to notice them, drove me out to a pleasant place just beyond the village by the side of an irrigation channel or possibly the carrier to a mill; and the horse-flies which maddened the horses, and how unnecessary the Cretans thought it when I brushed them off with a bough. There is a stream through Vianó which when it is running finds its way out into the bay of Kératon. This day the river was dry, but a splendid run of clear water spouted from a pipe in the middle of the village and filled a rough stone-basin.

The situation of this village is absolutely perfect; 1,800 ft. high it lies at the head of its vineyards and olive-gardens, which slope down and down, westward to the plain of Messará and southward to the sea.

Soon after leaving Vianó you enter a pine country; Peuko (pronounced Pevko) is the Cretan word for a pine, and you pass through a village of that name. It stands on the edge of what was once a fine pine forest, now, alas, represented only by straggling patches which reach from here to just beyond Malles to the last hill before you descend to Krustas. Beyond Peuko the road runs down a steep hollow with a splashing



stream to the village of Kalámi, where we slept. This little hollow, or gorge, is beautiful ; it is filled with ilex, myrtle, pine, oaks and poplars. Lower down near the village grow figs, pomegranates, mulberry, and other more or less cultivated trees. At this time of year the pomegranate (in Crete called *rhodiá*) is in full bloom. It is pleasant, after a long hot day in burning sun, to ride at evening down such a road as this, under the shadows of the sombre ilex, or into open spaces with white of myrtle and scarlet of pomegranate, and the stream tinkling down below.

If travellers have with them fodder for their animals, they may camp at a good spot on the road between Peuko and the head of this gorge. They cannot miss seeing it, for the road turns suddenly at a sharp angle and at the bend are three or four large plane-trees, and a spring coming out of the rock. I was obliged to pass it by because Demetrio had put off buying fodder, sure that he could get it at Peuko—and he couldn't, so we had to press on to Kalámi, where I spent the only really unpleasant night of my time in Crete. As it was quite impossible to find out of doors any place near the village where one could make one's bed, I had to sleep under the only roof available, which was that of a general store. What with bird-skinning, plant-pressing and writing, I had a good deal to do before attempting to sleep, and one by one the villagers dropped in, until—a good deal to the hindrance of the



work I had in hand—we were quite a little company in the store. But the men were very good-natured and extremely communicative, telling me many things they thought would prove of interest. As I knew no Greek, to speak of, I found it extremely difficult to follow what they said, more especially as several often spoke at once, and I was trying to listen and to skin my birds at the same time. But when I looked perplexed they illustrated the subject by appropriate dumb show. And I am not likely to forget the story of the Hammer of Zeus, for a hammer used to illustrate the story frequently fell very near my head as I skinned a bird on an inverted packing-case. They said that between us and the sea was a gorge in which, in its ultimate and very narrow ravine, one heard the hammer of Zeus. They told me that when the mountain wind was well astir, blow after blow fell upon this chasm with the sound and shock of a titanic hammer. The noise of these repeated blows they said was awe-inspiring.

Now the only gorge of this character near there appears to be that which lies below Peuko and runs thence to the sea. Near its mouth Pashley found remains which from their character and from their nearness to Mount Arbios and the little plain of Arví (anc. Arbis) he concluded were those of the temple of Zeus Arbios.\* Spratt says of this ravine, that the rock is “singularly

\* *Travels in Crete*, I 276.

rent from summit to base by a yawning fissure, nearly 1,000 ft. high.”\* He connects this rent with volcanic action evidenced in the rocks of the neighbouring valley (Myrtos), and proceeds: “In this remarkable feature, we probably see the reason for the erection of a temple to the God of Thunder at this locality, under the name of Jupiter Arbius. To whom but the God of Thunder could a temple be so appropriately dedicated when associated with such an apparent fracture from some great volcanic movement,” etc.†

I venture to believe that could this distinguished seaman and geologist have listened to the men in the store that night, he would have accepted their story as a much more promising explanation of the temple of Zeus the Thunderer.

The store was a large stone-building, its roof formed in the usual way of trunks of pine-trees covered with faggots, and its mud-floor piled with a general cargo of sacks, tubs, and cases; it was an ideal home for rats, and they certainly made the most of it and were astonishingly audacious. I kept them off for a time by the light of my camp-candle, and indeed it was rather interesting, as one lay on one's back on the floor, to look up and see them walking about in the faggots of the roof, balancing themselves on little projecting pieces of stick, like tight-rope walkers. As one could only see their white bellies they looked ghostly little beasts. But the camp-candle

\* *Travels and Researches*, I 293.

† *Ib.* 295.

guttered and went out, and then they came down for a general inquiry into the nature of the stores. And the air was not good to breathe, for paints, oils, and many kinds of smells were there; one particularly dominant and sickly odour baffled me for some time, but I found at last that it came from a barrel of decadent anchovies; for some time afterwards every anchovy I attempted tasted like that smell. I thought I would go and lie in the road somewhere, but when I looked out, under the opening at one end was the refuse-heap of the store and then a sudden drop to the river, while in front of the door, as far as I could make out with my matches, the street seemed to serve as a stable-drain, and I did not care to take the hazards of the dark. So that it is not without some reason that I warn future travellers to camp at the spring of the big planes.

There is one point on the road of this day's journey from which the traveller obtains a view of the sea and the island of Gaidaro-nísi.\* When I saw it there was a haze over the horizon, but this little island stood out quite clear, with its surface neatly covered by a white cloud. The form of the island was perfect, with this white cloth just laid upon it. An old naval officer who knows those seas well, tells me this always foretells bad weather.

In the formation passed through on this day's journey one finds an absence of schists and shales;

\* *i.e.*, Gaidero Island.

the rock is limestone of a close, homogeneous character; there is little weathering, there are no caves. The vegetation bears also a traceable relation to this; one noticeable absentee is the lentisk, nor is bracken there or any form of heath; instead of these one meets with myrtle, ilex, wild olive and wild pear.

The way out of Kalámi village is a curious one for a horse, because here and there the street is formed of steps, and the pack-horse only arrived at the top with much grunting and spluttering. It was rather as though one were to try and ride a horse out of St. James's Park by way of the Duke of York's Column.



## CHAPTER II.

### A LOVELY GLEN.

ONE of the most attractive little mountain-villages lit upon in Crete was Mýtos (pronounced Mythus), which we reached about noon of the day after Kalámi. We had turned to the left hand at the village of Murniés, and were making due north for Parsás, when we came unexpectedly upon Mýtos—unexpectedly because it was not marked upon the map. Away from the well-known beats one has to travel chiefly by the map in Crete, because, excepting in the case of the usual “sights,” your muleteer is not a guide. A Canea mule-boy knows well the way to Lákkos, or to Hómalo; a Candia boy that to Iuktás or Arkháles, but they get quite lost outside their own familiar ring of country. A journey such as we are making now Vianó, Hierápetras, Sitía—half-a-dozen provinces, takes us through Candia, Temenós, Pediádha, and more than a hundred miles of mountain country. When I asked an unusually intelligent youth in Canea to take the horses round and meet me at “Sphákia,” he was quite nonplussed. “How can I do that?” he said; “I do not know the place!” I ought to have said Sphakiá. This is one reason why it is so extremely important to

get correctly the pronunciation of names ; and very much in Cretan—in modern Greek—depends upon the accent. The accent is thrown forward, so that many of the familiar words of our school-days are unrecognisable when spoken as an English youth is taught to speak them. Therefore, if you wish to ask your way, but put the accent in the wrong place—in the place where, by instinct, you probably would put it—it is more than likely that you will not be understood. In the case of well-known places this does not matter ; should you speak of “Canea” a native will know you mean Khaniá, by “Sphákia” he may perhaps understand you to mean Sphakiá ; but when it comes to out-of-the-way villages and you are consulting the slower intelligences of the mountain-folk, to mispronounce the name of a village—even that of their own village—is to use a word conveying absolutely no meaning to them ; so that one must take trouble about this, for it comes naturally to one’s lips to say, for instance, “Viáno,” but unless one says Vianó one is not likely to be understood !

They do not reckon in kilometres, but in terms of time—not “how far,” but “how many hours” it is to such or such a place ; and at first the information is misleading, because their standard is the speed of a man on foot, but in travelling with pack-horses a five-hour journey easily lengthens into one of seven.

The village gossip-ground in Mýtos was under

the shade of fine old plane-trees by a bountiful spring; the water flowed from a well of masonry, almost certainly of the Venetian time. There was colour and movement about this fountain, for women were constantly stepping down on to the rocks among which the water ran to fill the stone-jars they carried on their heads.

There was an extraordinary old plane-tree here, that had grown over and into one side of a great boulder of rock; the lichen-covered rock and the lichen-covered bark could scarcely be distinguished from each other. The great bole was divided into two huge limbs, of which one was nearly horizontal, so that the children ran about on it like human squirrels. The wonderful old bark, rubbed down by children's feet through many a generation, had the surface of an elephant's skin.

The people of this village were very courteous and pleasant. They brought us mulberries and apricots, posed themselves and their children for the camera most good-naturedly, and sent us on our way with "God-speed" that clearly came from kindly hearts. I shall always remember little Mýtos. We left at noon for Kritsa.

The pine-forest which has shown itself for some time on the tops of the hills comes down to the road soon after leaving Mýtos, but they are cutting down the pine-trees; a German firm of contractors had felled very many for a new telephone-line from Kritsa to Hierápetras (or possibly from Candia—I am not quite sure). On one trunk, of many



lying outside Murniés, I had seen the number "1100," but several thousands must be used along that line, and, grown as thinly as these pines are, this must mean a very large area under the axe. These trimmed poles were twenty feet long, as well as one could judge by pacing.

The next village is Parsás, and then you cross the river Myrtopotamos—the River of Myrtle—and look down a long and narrow cutting into a widening valley and almost to the sea.

We are now circling round the south-eastern side of the Lasithi Mountains, with the plain of Lasithi above us to the north-east. It was a disappointment to me that I had not time to visit this celebrated plain, situated 3,000 ft. above the sea. Spratt says that at the time of his survey (1851-53) it contained fifteen villages and from three thousand to four thousand souls. He tells us that it has a very temperate climate as compared with the rest of Crete, and that though the flocks had to be removed to lower ground during the winter, some of the inhabitants remain up there then. In other characteristics it is much the same as the higher mountain-plains of Nidha and Hómalo. For "this remarkable upland basin has no outlet, being perfectly enclosed by mountains, and thus in appearance somewhat resembles a huge crater when viewed from the encircling summits above it. Its rivers and torrents, consequently, have no visible connection with the lower coast streams, but, after uniting in one



torrent-bed the waters fall into a large cavern at the extreme west of the plain, and thus escape to the sea through the bowels of the mountains by what the Greeks call a katavothron.”\*

The character of the rock changes at the river, for here the cliffs are of conglomerate, and great masses of this rock have fallen down and the track runs through their tumbled confusion. And now pine begins to be replaced by ilex, and presently you pass a solitary and very noticeable large pine-tree by a pond, and then cross the ridge and begin to follow down towards the eastern sea.

You are in a wide pass, covered on either sloping side with ilex. This leads you down to several stretches of park-like grass, and you come by a featureless and rocky descent to the base of Kritsa hill. On looking back you will notice that the pines come on just until they can look over the high ridges, so to speak, and then give place to the ilex which occupies the eastern slopes. Which may be the older growth it is impossible to say; perhaps there was a period when the pine-forest stretched right down to the sea. But pines can root in rocks where ilex cannot; the seed of the pine can drop into crevices that acorns cannot enter. For every acorn comfortably homed a thousand pine-seeds could sprout and grow; moreover, an oak requires a wider area than a pine from which its roots may draw, so that in a district

\* *Travels and Researches*, I 101.

of rock the pine would have the advantage. But in the process of disintegration and denudation the washings of friable deposit would become deeper and deeper; that is to say, conditions would become more favourable to the ilex, which as its roots searched a larger and larger area would slowly but certainly supplant the pine. Be the reason what it may, the ilex is the timber-tree of the eastern watershed of central Crete, and the largest forests are on that range of mountains known as Tápes.

All the land about Kritsa is of red earth, but the surface of tilled land, if left uncultivated for a time, tends to a blue-grey, so that the next plough sent across it draws a bright red streak, visible a long way off.

When we crossed the watershed we left the province of Hierápetras for that of Mirabella. This province bounds the eastern side of the Mirabella Gulf; there is the new town of H. Nikólaos with its Halmyrós, and there lies Spinalonga, which shares with Grabúsa the distinction of being the last foothold the Venetians had in Crete.

In Kritsa you may put up, as I did, at the gendarme station, where the officer in charge in the kindest way insisted upon giving his room up to me. This station is placed high up in the village, and, should you stay there, you will have from the balcony mountain, sea and island combined in a delightful view.

From Kritsa we travelled down the pretty and fertile valley of the river Kalopotamos, passed the village of Kalochorió, saw the remains of the ancient town of Gourniá, where Mrs. Hawes's discoveries were made, and so along the coast-line till we came to Pachyámmos, where Mr. Seager has his house. He was not at home, but by kind and hospitable provision, luncheon was there obtained. In the garden grew a bush of common rosemary. I had seen a plant at Krusónas and one on the road to Goniá, both in gardens: I never saw the plant wild in Crete, nor did I ever see wild lavender there. These always struck me as surprising absences from the flora I observed in the island. The view from this pretty house embraces the islands of Kumídhia and Psyra. The road down to Pachyámmos is bordered with juniper.

Leaving Pachyámmos we turned south, down through Monasteráki and along a road of hard, white sand to Katochoriό. Between these two points Demetrio, asleep on his horse, lost my collecting-gun. Katochoriό has an English-speaking blacksmith, a large and open gossip-ground with shady trees, and a fine village-fountain. From Katochoriό ("the village at the bottom") there is a steep and exacting climb to Epánochoriό (the "village at the top"). In the lower village we waited for two hours while Demetrio vainly tried to get fodder and as vainly tried to recover my gun.

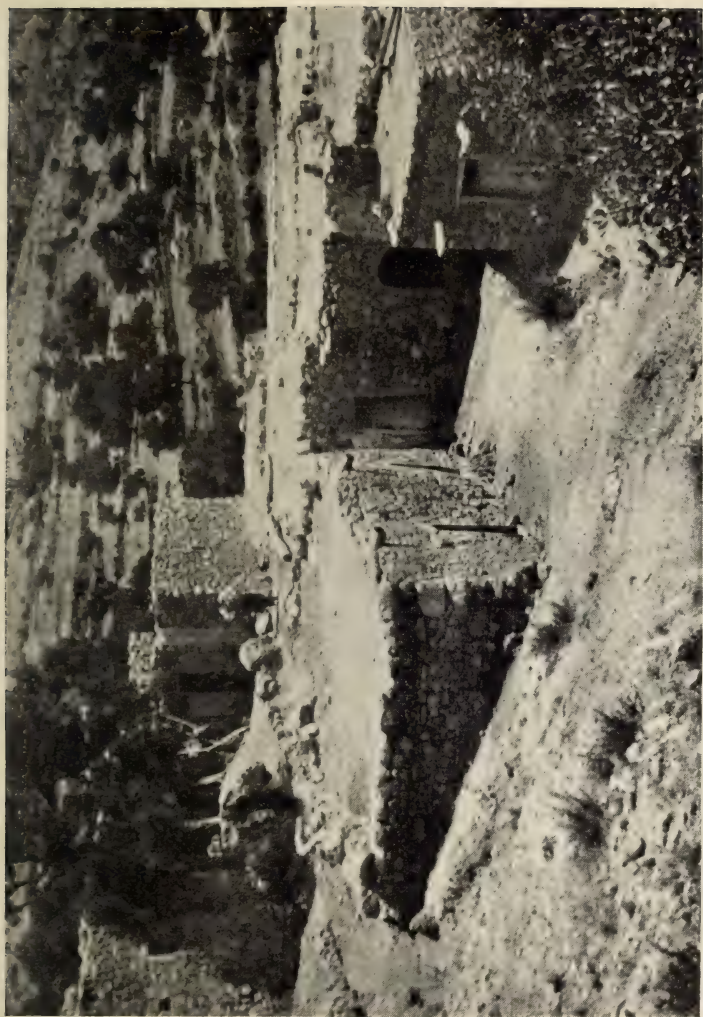
When the traveller leaves Epánochoriό and rises



to the mountain-ridge that lies upon its eastern side, he has in command a view that perhaps cannot be surpassed for loveliness anywhere in Europe. He is now standing upon the narrowest part of the island, where it is not more than about eight miles across. The spot which compels him to turn and look is, I think, between three and four thousand feet above the sea, and he looks from one sea to the other at a glance. Below him on his left hand lies the southern city of Hierápetras, on his right is the gulf of Mirabella with its islands—Kumídhia, Psyra, H. Nikólaos—little blots of purple in a cobalt sea. He can look right on to Spinalonga, twenty miles away; can see Kritsa which he has lately left, now so far away that it seems incredible that since setting out on the morning of this very day he can have crawled so far; and then he looks on Dikte and the long range of forest-clad mountain that rims Lasithi Plain. There was even something dimmed by distance which I thought might be the cap of Ida, but of this I cannot be sure.

As you turn to resume your journey you have mountain on your left hand, but on the right there is still the sea, with far away a little cloud low down upon it that marks the Kupho-nisi Isles. With H. Iohannis you reach a typical mountain village. Though this village lies in the open, hidden by no trees, it is only a small exaggeration to say you might ride along above it and not know it was there, because the houses are of exactly the

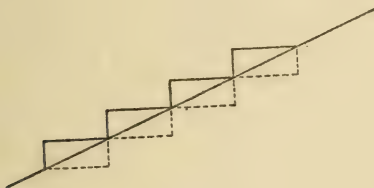




HÁGHIOS IOANNIS : A MOUNTAIN VILLAGE, ALMOST INVISIBLE FROM ABOVE.



same colour as the ground, the roofs are flat and without parapet, and the shape of the houses is that of a piece of Cheddar cheese with its thin end up the hill. The result of this is that when you look straight down upon the village from above, there are scarcely any shadows (because no corners or projections) to catch the eye; in short, these houses are easily confused with the mountain-terraces among which they are set. The floor of the dwelling is cut into the hill, but the slope around it is not levelled, so that, looked at from above the village, seems to be merely a part of the terracing of the mountain-side. Diagrammatically the scheme would be like this :



It was evening, or towards evening, and Demetrio of course was all for stopping in H. Iohannis for the night. It was not until afterwards that I got to the bottom of Demetrio's strange reluctance to providing properly for his horses' food. The fact was that Demetrio was either superstitious, or else afraid of being robbed or killed; therefore, poor fellow, he was in positive dread of sleeping out in the mountains away from the protection

of a village or a town. But we had oats in a bag, and I knew that at the worst the horses could eke these out with leaves and brushwood, and therefore insisted upon moving on. We were well repaid.

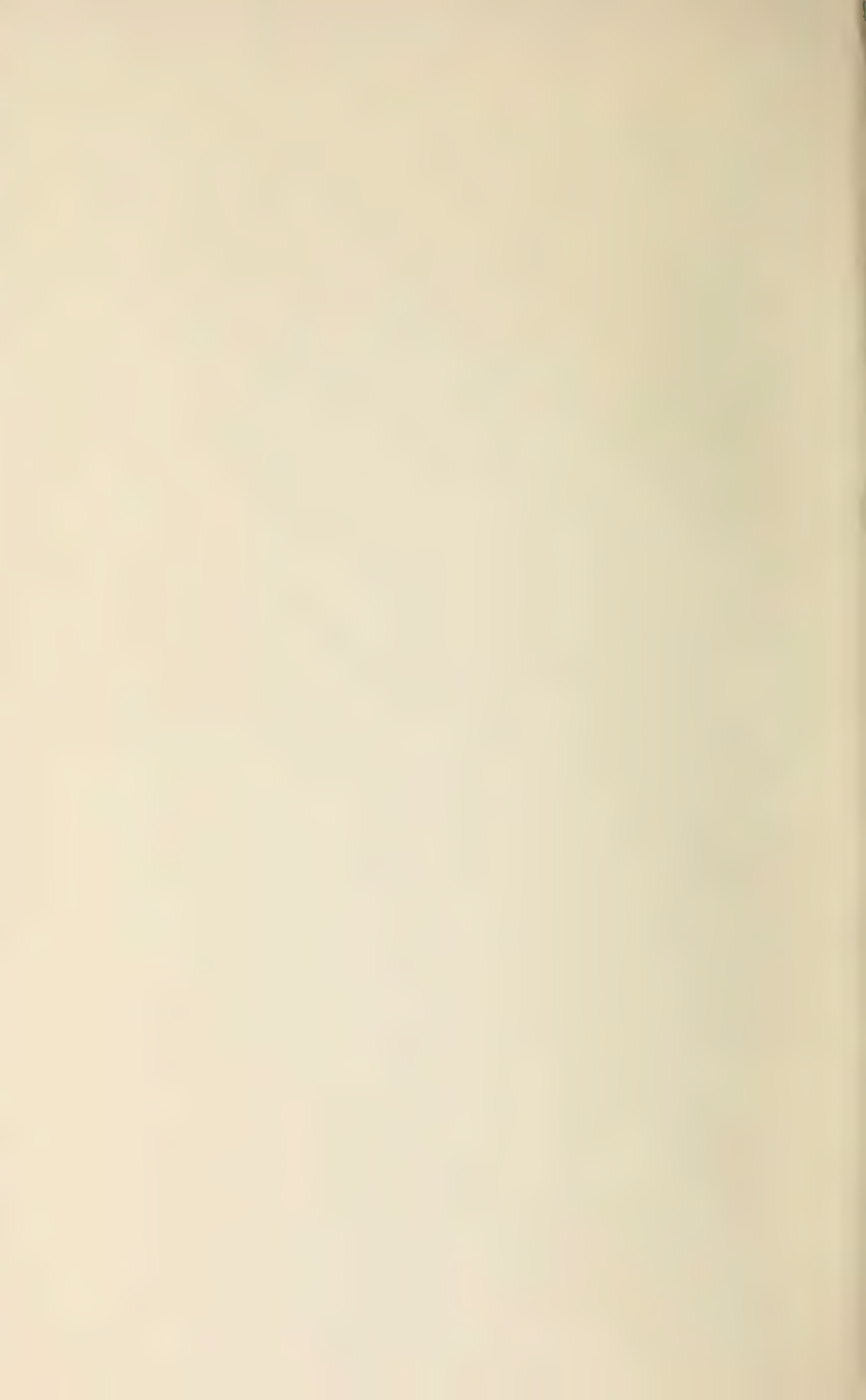
We were now travelling along in a north-easterly direction and skirting the edge of a wide valley which, beginning at the foot of Effendi Bounón (the Mountain of the Lord) runs thence uninterruptedly to the sea. This mountain is marked on the chart Effendi Kavusi (the Lord of Fire). The valley, precipitous in places, was absolutely desolate—no flocks, no cultivation, nothing but rock and pine. The one sign of human interest we saw was a shepherd's or woodman's letter-and food-box and stone shelter by the track. This point commanded the whole of the valley, and I expect a native's power of distant vision (*teloskopía*) would enable him to keep a watch on the box when the long-distance mountain-call (*tilolalía*) had given him notice that something had been placed inside.

It was just getting dusk when, on rounding a shoulder of a hill, we saw below us a deep and bosky glen. On the other side the mountains rose again, rocky and inhospitable as those we had long been traversing. But between them nestled this long strip of woodland, with a little pillar of blue smoke rising from the hollow, that promised water and a resting-place. By the time we had descended the mountain-side and turned in among





FOOD-BOX AND SHELTER. EFFENDI VOUNÓN IN DISTANCE.



the trees it was nearly dark—too dark to see much ; only we could make the track out dimly, and could hear a pleasant sound of splashing water, and of breaths that moved among the leaves. Crossing a ford and guided by the smoke, we felt our way up a little pathway, till we came to a halt by a curious stone building where a man was standing at his door. The building was a mill, the name of the miller Johanno Lambri, and a kindlier miller does not live in Crete.

He had a garden where he grew potatoes ; it was surrounded on three sides by water, and here, under the shade of plane-trees, he let us make our beds. We had a good square meal that evening, for he cooked us bannocks of flour and water and boiled us potatoes. Before turning in I took a camp-candle and went for a little walk of exploration up the glen behind the mill ; but at the beginning I found myself on the roof of the mill and was afraid of going through it, and then on a narrow pathway between two deep-lying streams of rushing water, which path was so treacherous that after slipping twice, and nearly into the water, I returned to camp.

The morning rose in glory. It was cold. Around us was the sound of many waters, of stream divided into streams. I lay in my sleeping-bag and looked at the sunlight creeping down the hills. It came lower ; it touched one rock and then another and drew long shadows from the twisted pines. And then little vapoury streaks of whiteness began to

stand out from green hollow-places, because of the runnels hidden underneath. Then a bird sang somewhere very clearly, and the air began to quiver and the mist to move; and presently the sun cleared the ramparts of our valley and looked down into its depths, and seemed to catch up song and mist and sound of waters to himself. It was day.

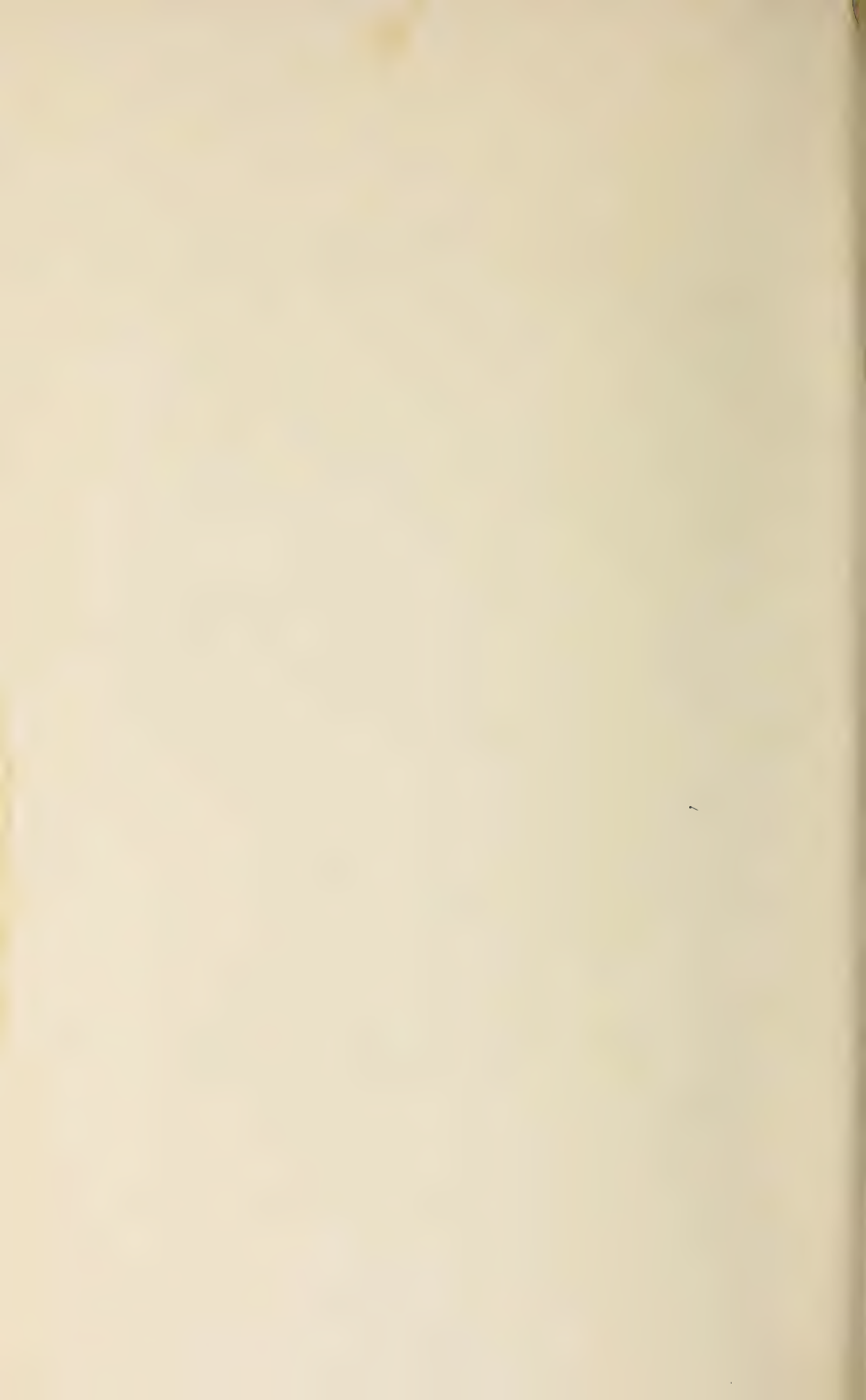
The garden was bounded by a steep bank at the foot of which was a pool among the rocks, providing water for a bath. Then we made our coffee and ate what we could find.

Before saddling up I went with the miller for a stroll up the glen. This is what one sees: an encircling bastion to the north—a mountain bastion scarred, precipitous; no pass is there, no way through, the country is closed in by towering walls, on the right by the scaurs and ledges that lead up to the rounded summit of its own especial guardian the Mountain of the Lord. In the base of the cliffs is a spring that makes a river that runs down into the sea. On either side the rock slopes steeply down till it touches the narrow cutting that the stream has made. The fall of the stream is sudden; the water flashing over the stones. The sides of this glen are dotted with pine-trees, thin at first, then a little closer; they are never so dense that you cannot see the rock. Then other growths begin; karob, plane-brush, myrtle, oleander, with here and there pomegranate, run wild perhaps from gardens of all but immemorial





WATERMILL IN PSYCHRO' GLEN.



time ; for my friend the miller tried to tell me something of the great age of this mill-industry, and of how once the water passed to Hierápetras on the one hand and on the other to some more distant town—I thought he said to Sitía, but that could hardly be.

But now the stream is so split up that it drives no fewer than six mills, placed at intervals up the glen. “Mill” suggests mill-hands, dust, and whirring wheels ; but the little flour-mills of this glen are a very different thing. Built of unmortared stone, low and square, with a curious wall raised high in the middle, along the top of which the water is led to fall through a chimney on to the horizontal wheel—each mill is an object not unpicturesque, and gives to the solitude of this mountain-hollow just that touch of human interest it demands. The stream is thus divided into several, and each goes hurrying to its task ; how many there may be you cannot say, for you are always crossing upon these glittering runnels, always have their plash and tinkle in your ears. And everything is tangle, tangle up to the very walls of the mill ; so that you must walk warily, often hearing water out of sight. Not only does the water flow from the spring-head, but by the side of the path it comes sparkling out through maidenhair fern from walls of rock. Every butterfly in the district seemed to have come there that morning to drink from these miniature falls ; they were grayling butterflies, with their beautiful floating flight ; it

was easy for them to get water here because they could settle on the maidenhair and the moss.

This glen or valley is called Psychró ('cool'), and an enchanting valley Psychró is.



## CHAPTER III.

### THROUGH THE MARBLE PASS.

PSYCHRÓ Glen is, I believe, actually on the borderline between the province of Hierápetras, which we have just left, and that of Sitía, which we are now entering.

It is sad indeed to see the ruin that has been wrought in the forests of Crete. The country through which we passed from Psychró Glen was once a great forest of pines. If these had merely been cut without care, or even recklessly, the result would have been bad enough, though young trees would have been left. But worse than this has happened, for fire has been at work. Utter ruin has been brought about by the following practice. When a tree was wanted for timber the lazy woodman, to save his labour, lit a fire round the base, and kept it burning till the lower part of the trunk was charred and the tree toppled to its fall. In many places the blackened stumps still remain to witness to this careless and wasteful work. But the worst of it is that these fires often spread about the forest, blighting everything they met. So the seedling trees that in course of time would have taken the places of those

used for timber, were swept away by flames that burnt up in their progress every kind of vegetation and baked the very ground.

This is sad indeed; and it is to be hoped that the Cretan Government will now enforce its forest-laws, which would do something to save the remnant that is left of the old forests of Crete. But private ownership is here a constant hindrance.

Round the shoulder of the hill the track runs through the only piece of really thick pine-forest that I saw. This bit of forest lies between the villages of Skinokápsala and Ornú, and you can ride through it in little more than an hour.

Ornú is not marked on the map: it is a little village about half way between Skinokápsala and Rukáka. One remembers it the better, because at about this point the character of the scenery changes entirely. Hitherto we had been passing through a country of steep and rugged rocks dotted over for the greater part with trees. But from near Ornú one saw a very wide expanse of shelving ground, yellow with crops or brown with stubble, and not a tree—nothing to break this rather drear monotony until one looked away beyond it to the north. There two mountains rose, and between them was a long pass, and, where they seemed to sink again, there lay to right and left a mass of gleaming white upon their sides—outcrops of “marble.”\* Later on, as we

\* Although spoken of in Crete as “marble” (μάρμαρον), this, in the strict sense, is not marble (calcium carbonate), but is a laminated gypsum (calcium sulphate).

sailed from Sitía to Candia, I again saw white showing on the corresponding part of the northern face of the mountain.

By two o'clock that afternoon we came to the village of Rukáka. This village has been the scene of some of the bitterest fights and most bloody massacres of all the reprisals between Christian and Mohammedan, and consequently a great part of the village is now in ruins.

In Rukáka I lunched with the sergeant of the Civil Guard: he gave me eggs and Turkish coffee. Like all these men I came across, he was exceedingly hospitable and kind, and with the help of my phrase-book we were able to converse with one another—imperfectly, of course, but very agreeably. He had two nestling Blue Rock-thrushes hanging in a cage, and on my expressing an interest in them he insisted upon my accepting them as a present, cage and all. So there was much amusement when we left, for we looked like travelling pedlars, the horse piled up with a medley of things, and on the top of all the large wooden cage, with a persistent chirping coming from the tiny occupants huddled down in one corner.

Just one hour from Rukáka we came out on to the watershed of the mountainous backbone of Sitía. As we entered the pass between the marble portals, I thought that now we should begin to descend: I was mistaken, for there is a very long interval between one stream and the other; it reaches almost from Daphne to Turtúlus.



The horses were tired, so we made but a slow journey of it, and once we had to change the packs. This at best is not a quick operation and is a long one when one only has the help of a lad like Demetrio who is not handy at the job. So we began to get pretty hungry in the dusk and ready for any food that would come our way. It came thus. A procession met us creeping up the hill—a donkey led, laden with sheaves of barley; then came an old man, then an old woman, and she was leading the goat; two pigs following behind brought up the procession. When this old lady understood that we were hungry she generously milked the goat into one of my tins. But I decided we had better not drink it then, and we carried it along very carefully for our meal in camp.

We got a cup of Turkish coffee and some bullet-like apricots in Daphne, where poor Demetrio, of course, longed to stop; but it was a dirty, uninviting village and I again passed on. Water flowed from a fountain in the village, but the river-bed below was all but dry, the little water that lay about in pools looking in the dusk too stagnant to be good to drink.

We trudged along, leading our horses down the side of this dry stream, always listening for the sound of moving water and hoping for a place in which to make a bivouac. It was dusk. Demetrio was a long way behind, when there came a drop in the ground, and turning out of the track into a little stubble-field I found myself by the side of a stream.



All this afternoon we had been bothered by wind, which sometimes blew in such strong gusts that the horses staggered and almost seemed as if they must go over the edge of some of the steep paths we followed. When one has no tent it is unpleasant camping in a gale, and difficult to settle down in the dark with everything blowing about, for by the time we had moved the packs and tethered and fed the horses it was dark. But I found a place under the lee of a hill that was fairly well sheltered, and there we lit the lanterns and made our beds.

When we went down to get water, crabs sidled away from the light of the lantern and secreted themselves under stones. We fished out a few of these, and Demetrio tethered them by their legs with a string, because I wanted them as specimens, and some I thought we might boil for breakfast. But they jerked off a claw and walked about. So then we put them into the water bowl, but though we weighted the lid with a stone, they prized it open and again got out (for crabs are very strong) and set off sideways through the stubble for the stream. We recovered some of them and they are in the South Kensington Collection now. But as I was just going to sleep I felt something on the move, and there was a crab, exploring the recesses of my blanket.

Early the next morning cattle began to move up past our sleeping quarters, and then a woman or two with their boys, and then after a few

minutes' interval there sounded a torrent of angry Cretan from a lusty throat ; the farmer on whose land we were was raging at the intruders. As I did not understand a word he said, but only gathered the drift of it, poor Demetrio had to bear the brunt of the attack. The farmer, a very big man, towered over Demetrio in his wrath, but Demetrio stuck to his guns like a man. It was a prolonged and stormy period, but as soon as it was possible to get a word in edgeways, I asked him for his estimate of the damage we had done. He assessed the amount at one-and-threepence, receiving which he softened at once, and beamed as he bid us good morning and walked off.

It was rather pretty here, with the ripple of the little brook, and the oleanders in full flower, but there was no shelter from the sun, so it was not long before we moved away to find another camp. For a long time we travelled down the dry bed of the Sitía River, but about mid-day we found a most delightful place just where a side stream enters, near the village called Epáno 'Piskopí (Upper Episkopí) to distinguish it from Kata 'Piskopí (Lower Episkopí), near Sitía town. Here, under the shade of a beautiful plane-tree, where irrigated land provided rich grass for the horses, we prepared to make our camp. The little rock-thrushes had a good time, for the place abounded in grasshoppers, of which I got a good live stock for their future needs. They were charming little birds.

It was an ideal spot; the water, led through little channels, sparkled among the grasses in the sun, and the horses filled their bellies and rolled to their heart's content. It was a very restful place, and I looked forward to a pleasant time, for we were barely seven miles distant from Sitía, so that we could afford to take it leisurely until the following day, when we should move down to catch the weekly steamer, and I had timed our journey to fit this in. But it was not to be.

It was late afternoon; I had just finished setting a round of traps, and Demetrio was up in the village trying to get hold of a piece of cheese, when the sound of a distant hooter came with the wind from the sea. Demetrio came flying back to say this was our ship—he was certain of it because he knew the particular sound of its hooter quite well. I could not understand it, for I knew it was a day too soon. However, I could not afford to take the risk of missing the boat and of being held prisoner in Sitía for a week. So I lifted my traps again, collected all the camp litter, gave the birds a grasshopper apiece, roused the poor horses, saddled up, and once more we were on the road.

We came in sight of the bay of Sitía only to find that this was our boat truly enough, but that she was steaming out the other way, going in fact round to Hierápetras, so that we should not board her after all until her return on the morrow.

It was disappointing, but there it was. So we passed through the town by its long street of



entry, and climbing by a vile road to the quarters of the Civil Guard, which are perched high up overlooking the town, asked for a night's lodging, which, as usual, was most kindly granted. Their barracks occupy the site of an old fortification, are entered by a venerable gateway and lie round a large barrack-yard. From the ramparts you have a fine view down over the harbour, round the gulf and away to the islands of the Dionysiádes group. The captain of the Guard was a courteous Italian gentleman, and the room I used was kindly given me by its rightful occupant, a hearty old brigadier. We made great friends over my phrase-book, and I shall always remember with pleasure my stay in Sitía with the Civil Guard.

On the following day I left in the steamer for Candia. She was again the *S. Nikolas* under the same skipper, but my old friend the harbour-master and his hubble-bubble were not there. It was pleasant to sit on the bridge and look at the places so lately passed on foot; I saw the marble out-crop on the reverse side of the mountain, saw Psyra and its excavations, saw Kuhmídia and Mr. Seager's white house at Pachyámmos near the shore and Kritsa on the hill, and we landed passengers at the new town of Háchios Nikólaos, south of Spinalonga. Should Crete ever develop its resources, this will become a very important town, for it is the natural focus of all the trade of the Mirabella district, and although its own anchorage is little better than a roadstead, it lies handily within



reach of the great bay of Poro, a perfect shelter from northerly gales and large enough to be, as Spratt remarks, "the anchorage of a fleet."

To add to my disappointment in not having visited Lasithi, I was now unable to land when we stopped at Hágghios Nikólaos. Close to this town are two natural objects of the highest interest: "On the east side of the cove called the Mandregio of S. Nikólo is a small circular pool of brackish water, about fifty yards in diameter. It is separated from the sea by about twenty yards of low ground only; and yet this pool was found to have a depth of 210 ft. in the centre—a depth which is not attained in the adjacent sea within two or three miles of the coast. . . . The sides of this hollow, beneath the surface of the pool, must constitute a precipitous funnel-shaped depression. Yet there is no appearance of its being a volcanic vent or even the result of volcanic action by any proximate igneous rocks being visible; and as it still has a small stream opening out of it into the sea, I think it was at one time the aperture of a larger source or subterranean river, which found its escape here from the heart of the mountains above; for there exists at Halmyro, about a mile south of St. Nikólo, a copious source of brackish water that issues from the foot of a hill about half a mile from the sea, and forms a little river from its magnitude and strength . . . it runs in a clear, limpid, and beautiful stream, turning some water-mills, and abounding with wild fowl."\*

\* *Travels and Researches*, I 145.

Miss Bate also describes a small lake close to the harbour; she says it is connected with the sea. "I went to it in the evening, and it presented a most interesting sight, for it was extraordinarily phosphorescent. There were great numbers of fish in it, which darted about, looking as if made of fire."\*

It was too dark when we passed Spina-longa for me to be able to distinguish more than its general outline. This was the chief trading port of the Venetians. "The harbour is formed by a long peninsula connected with Crete by a low and narrow isthmus at its south extreme, which is in one part only 100 yards wide, and hardly more than three feet above the sea."† Again: "Off the north end of the peninsula of Spina-longa, and close under the squally heights, there arises abruptly from the sea a small but high and cliffy islet, upon which the Venetians built a strong fortress, serving both to defend the anchorage behind it, and also to be a secure garrison for the command and subjection of the natives of the Mirabella. . . . The town is situated on the western side of the rock, as the eastern face is quite precipitous, like that of Gibraltar."‡

Inland from Hágghios Nikólaos, Spratt visited remains (missed by Pashley) which he determined as those of the City of Olus or Olerus, noted for a festival celebrated to Minerva in early Cretan times, who was called in consequence the Olerian

\* *Epist.*

† *Ib.*, I 121.

*Travels and Researches*, I 118.

Minerva. He quotes Cramer upon this point (*A Description of Ancient Greece*, p. 391). The account of his visit to Olus is so interesting and so exact that for the benefit of future travellers who may not have access to the work in question, the quotation is here given at length.\*

"I ascended to this place (Lakonia) from the port of Hágios Nikólo, in the Mirabella Gulf, where I had anchored my ship for the purpose. We entered the plain by a gap in the east side of the mountains which enclose it, after ascending a valley leading from St. Nikólo. Then passing by two farms and a grove of olive and carob trees on its margin, we reached, at the end of a mile and a half from the gap, the foot of a double-crested hill. As we were now approaching it from the main road to Kritsa, our guide pointed up to the two crags that surmount the hill, and said, to my surprise, that the old City was there; no vestiges of it, however, were visible from below.

"The main road to Kritsa and Ierapetra from the Mirabella here winds up its western side from the Lakonian plain by a zig-zag path for about a quarter of an hour, until a higher plateau or valley is reached. Here our guide, on reaching it, turned suddenly off the road and led us direct up the hill towards the crags, although it was steep and pathless. By this short cut to the goal of our aim we soon came in sight of some massive Cyclopean ruins on the hillside; and shortly after-

\* *Ib.*, I 130.



wards, at a little above them, we reached a gap between the two peaks that form its summit, and then discovered near it an ancient road, having a Cyclopean face to support it, which led to the gap, from the eastern base of the hill and from the Kritsa valley.

“Its massive character and breadth at once showed that we were either upon a roadway leading to some important city of the earlier Cretan days, or a much frequented way to some sacred spot on the mountain, such as that of a temple or oracle. As soon as the gap was reached by this road (and we had scrambled over some ruins of the same ancient character in getting to it) we were surprised to find ourselves upon the brink of a crater-like hollow, lying between the two peaks, and of an oval form, about 500 yards in diameter, and shaped like an amphitheatre, with a level area nearly 100 feet below the brink. It was terraced in its descent on all sides by a series of natural and half artificial terraces, somewhat representing also the steps of an amphitheatre, upon every one of which were the ruins of habitations of the earliest and rudest Cyclopean style. They were in some instances in a remarkable state of preservation, which, in fact, was the result of their massiveness and long neglect, for many had the large stone posterns to the doors still erect; and these massive blocks, which were in single pieces, were the only stones that had been worked into anything approaching a rectangular form. But the mountain being



composed of a highly stratified blue and grey limestone, the rock was easily split with large slabs, and thus facilitated the construction of houses and terraces in this style, and with some sort of uniformity also ; and it sometimes led to the combination of the rude Cyclopean with the polygonal style, and also sometimes even passed into the Hellenic, with horizontal courses of blocks for short intervals, just as the splitting-up of the rocks seems to have favoured and suggested." Spratt records that he never saw the remains of a city of that period so singularly placed, nor in so remarkable a state of preservation, nor so consistent in the character of its work. He says the only indication of any brick, cement, or mortar throughout the entire city was that of the rock-cisterns, "for no Roman or middle-age remains are to be seen to break the harmony of this unique Cretan city of the heroic times."



PART V.





## CANDIA TO CANEA BY WAY OF SPHAKIÁ.

**B**EFORE coming to the main subject of this Part we will visit a remarkable spring of water easily reached from Candia.

The first objective of the longer journey is Lake Kurnás, the only lake in Crete. Any blue spot put for open water on a map always, I think, attracts the imagination. One wants to know what fish it holds, what plants grow by its banks, what birds wade in its shallows or nest in its reed-beds, what animals come down there to drink at evening; one wonders whether it is deep and rocky, or shallow and marshy, and why it comes to be there at all. When on the whole of the map there is but one such blue spot marked, the eye inevitably comes back to it again and again, and the mind unconsciously sets it down as one of the things that must be seen.

Lake Kurnás is reached either from Rétimo or from Canea. Although the journey from Canea is by far the longer (about three-and-twenty miles as the crow flies) yet it must be much the quicker of the two, because it follows the carriage-road from Canea to Súdha, and then the Vamos road across the flats, so that you could gallop nearly all the way. But I went from Rétimo by a

mountain-road, and did it as part of a journey of some 120 miles, begun at Candia and ending at Canea, taking in Sphakiá on the way.

Besides Lake Kurnás, therefore, we shall on the journey traverse the ravine of Askíphu, shall see St. Paul's harbour of Phoenixe, shall cross the gorge of Arádhena, and descend the mountain-face to the sea. Then we shall pass right up through the wonderful and beautiful gorge of Haghía Ruméli, also called the gorge of Samaría (a corruption, probably, of Santa Maria), to find ourselves again on the Hómalo Plain, from which we shall ride down to Canea.

The first part of the way takes us from Candia past Rétimo to the Lake. This, I think, is worth describing, because it covers some forty miles, as the crow flies, of the northern border of Crete, some of it on the coast-line, some lying but five miles inland from the sea, yet separated from it by mountain-masses that in one place—Mount Kulukuna—rise to some 3,500 ft.

The journey was made in three stages: leaving Candia one afternoon, I slept that night on the Strómbolo Plain, the following night by a well near the village of Pérama, and the third night on the banks of Lake Kurnás.





MT. IUKTÁ, THE TOMB OF ZEUS.



## CHAPTER I.

### THE HALMYRÓS OF MALEVIZI.

THIS day I went in a fishing-boat from Candia to see the Halmyrós of the province of Malevizi. The word Halmyrós, of course, means salt, and the name has been given in Crete to certain springs because they are more or less brackish.

There are three of these springs, and their disposition is not a little curious, for they all occupy analogous positions on the coast. Each of the three great indentations on the northern coast—that in which Candia lies, that in which lies Rétimo, and finally the Mirabella Gulf—has its Halmyrós, and in each case the spring is on the western shore.

It is only a short ride from Candia to the foot of the Halmyrós, but I engaged a fisherman to take me in his boat because I wanted to go up the river which rises in the pool, and particularly to catch specimens of its fish. So we pulled out of the harbour and ran up the felucca-sail in the light breeze of a lovely day. We passed the point beyond the old Venetian ramparts, saw the plain and the white villages; and rising above all, the mass of Mount Iuktas, the mountain of the Passing of Zeus.

Whether the ancients were led by the form of this mountain to ascribe to it the honour of being the resting-place of the Father of Gods and Men, history does not say, but certain is it that the human mind cannot conceive of a more sublime monumental sepulchre. Rocks and mountains often bear a likeness to human lineaments; every traveller can recall many such resemblances, but none that I have seen have the convincing dignity of the face on Iuktas. The bearded face and the drapery or pillow on which the head reposes occupy the whole of the mountain-top. Seen in the flatness of the mid-day light it is an interesting outline and no more, but at turn of the sun the sculpturing begins. The sun works in masses, as Michelangelo worked; it carves out the planes of the face as Donatello carved them, letting detail go. So the chiselling continues, a high light here, a deepening shadow there, till with closed eyes the head has sunk down upon its pillow just as the sun is low. The face of Zeus on Iuktas, seen from the sea at close of day, is infinite in the pathos of power wearied, infinite in the beauty of peace. The man who can study it unmoved must be made of hard metal indeed.

Going we saw none of this, because the sun was high. The breeze died down and we had to pull. Before us rose the mountain of Strómbolo and a lesser mountain nearer the sea over the angle of the bay where the Halmyrós lay. So full and strong was the flood of the river, that for a little

distance out at sea the water was scarcely salt in taste, and as we drew nearer to the mouth the surface was rough and broken by the bar and by the heavy sea-water which the stream encountered, and the current catching the boat swung it broadside; indeed, pulling was such hard work that we had to get out and tow. But presently the channel narrowed and grew deep, and taking again to the oars we moved up as quietly as in a pleasant dream. The depth was considerable: we guessed it here and there at over fifteen feet; but the sun played down into the lowest recesses, lighting up the bed of the stream and revealing every little object that lay upon the bottom as if the depth had been in inches instead of feet.

As one looked down into those lucent pools, shoals of little red-scaled fish came into sight, flashing like copper mirrors as momentarily they turned upon their sides. Here and there lay an eel, his head seen only for a moment ere he raised a little cloud above him as he withdrew it hastily into the mud. Water-tortoises, too, crawled slowly on the river floor, and buried themselves on the coming of the boat. Ribbons of pretty weeds streamed undulating from the bottom, and green, red, and blue dragon-flies dried their wings on stems of reeds and flashed into the sun.

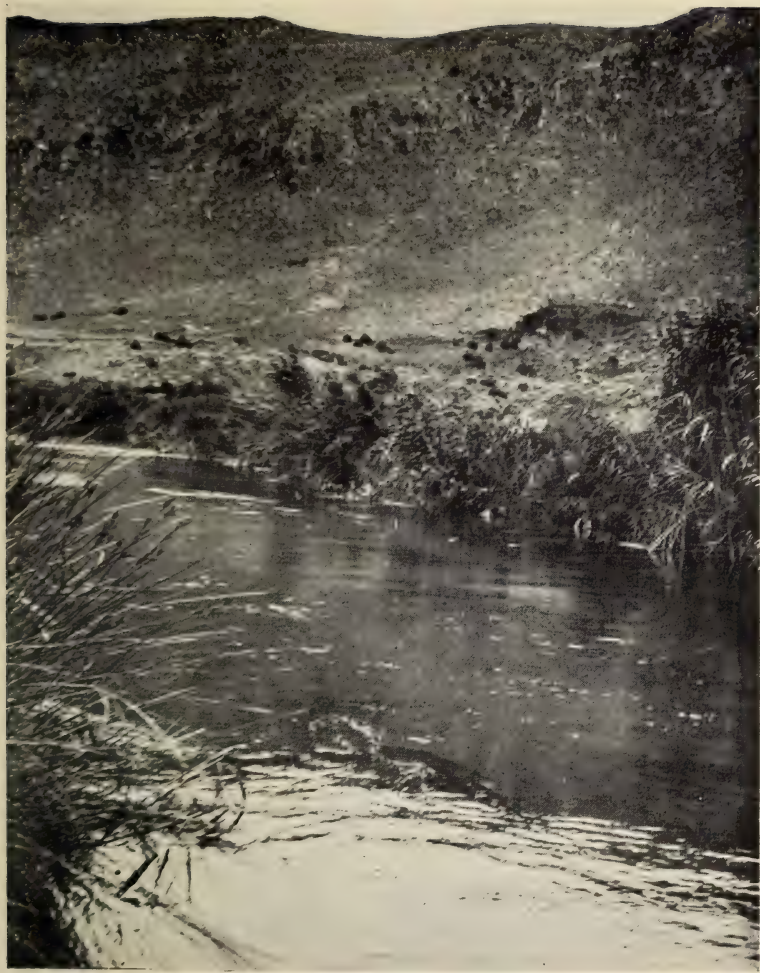
Because the river was short, a river without tributary streams and one that did not flood and annually change its passage, the channel



was an old and probably the original one. It lay between banks of mud and sand held together by roots of tamarisk and osier, and of reeds that formed a broad bed on either side. The reeds grew in large tussocks, and water lay about them making a quaking bog. Everywhere along the banks there were runs and stools of tortoises, like those of large water-rats, and, as we passed, the tortoises shot off from their stools into the water with a speed that much surprised me. There were hundreds and hundreds of tortoises; among the floating weeds in the backwaters their heads made all the surface rough, as do the heads of frogs at spawning time. Snakes also swam in the water and dived with a sinuous motion; we easily caught tortoises in our landing net, but the snakes we could not catch. I saw our common water-hen, but saw no water-rats.

Presently at a turn of the river there were fan-palms growing by the water's edge, and scrub of palm seedlings on the rising ground beyond, the only palms, away from gardens, that I saw in Crete; I supposed they had been brought there by the Arabs very long ago. And then on our left we found a little landing-place and an old well with its large plane-tree and natives grouped about. We landed here and I walked on to see the pool of the Halmyrós, leaving the boatman to catch me some fish. This he had assured me was a very simple matter, but, when I considered the small mouths of these little river fishes and





THE RIVER OF THE HALMYRÓS OF MALEVÍZI.



saw his primitive tackle and clumsy hooks, I had my silent doubts.

I cut a corner of the river, and soon came upon the back of a line of several flour-mills, built continuously, touching one another. From beneath these mills the water came with foam and roar, finding its way through the different channels that united to form the river up which we had come. In front of the mills was the dam, a long and straight embankment paved with and apparently built of stone; certainly it was faced with solid masonry. There can, I think, be no doubt that this work is Venetian: one can generally tell Venetian stonework, it is so beautifully fitted and finished and has a certain distinction that one does not find in Turkish work in Crete. Doubtless these mills were once very important from their nearness to the city. The water reached the wheels through cuts built square in the solid masonry, with hatches of iron and wood.

When the hatches are shut down, the water is diverted over a stone curtain into a side channel, making a water-fall and tumbling-bay. But at the time of this visit the mills were working and this channel was empty, so that I was able to find my way across the curtain and round the edge of the pool, though it is impossible to walk completely round it, because at one point the rock wall which surrounds it on three sides descends too abruptly. On the western side the rock is highest—is indeed the termination of the mountain slopes

behind it, and in this wall are two caves ; one in the side of the rock was closed by a door, and I suppose was used by the millers for stores ; the other, in the south-western angle, was below the ground. I climbed down into this and found water moving below, which is probably connected with a river reported to disappear below ground some two miles above the pool. I was sorry not to have an opportunity of visiting this point. Large clumps of a long-stalked dianthus grew in the crevices of the rock, but its flowering-time was over, and I was only able to collect a very small quantity of poorish seed, because almost every capsule had been drilled by some form of insect larva.

In shape the pool is nearly circular, and, though it is difficult to estimate distances across water, I guessed it fifty yards across. The water is absolutely clear, and towards the middle is apparently of great depth ; the millers, of course, consider it fathomless—they always think that of deep pools—and in spite of its transparency one could only see the bottom for a few yards from the bank. Superficially the pool was a cold Antwerp blue, but when you looked down into its depths it was bluish-green, until just above the place where the bottom became lost to view, it turned to quite a pale yellowish-green, and seemed to be illuminated by light from below. This was no doubt due to light reflected from the rocky floor of the pool. Here and there weeds





THE HALMYRÓS OF MALEVÍZL.



were waving and strings of bubbles coming up. The clearness, the colour, the sunlit depths, the waving weed and the rising bubbles, made one feel exactly as if looking into a gigantic aquarium. I only saw one or two small fish, and they must have rather a restless time ; for in the centre of the pool the springs rise so strongly that the surface appeared to be slightly convex, though this may have been an optical illusion produced by the light playing on the water as it rose and flowed away in every direction.

The force and volume of the water that comes ceaselessly from these springs is indeed surprising : it swirls through the hatches like a river running at flood. No doubt at this time of year all the reservoirs in the limestone mountains are particularly full from the recent melting of the snow. For the same reason the water tasted very slightly brackish, but the miller said that later on in the summer both it and also the river would be decidedly salt, and this statement the fisherman confirmed.

The cause of the salinity of these springs has been much discussed ; intelligent Cretans with whom I have spoken hold the belief that the salt water comes in from the sea, and this view appears to have something to be said for it. As the mainland mountains and the islands (such as Dhia) are formed of limestone, so doubtless is the sea-floor that lies between. Therefore the sea would fill up to its own level the hollows and passages abounding in

the limestone-rock. Thus the volume of fresh water pouring down inside the mountains would eventually meet a great body of salt water heavier than itself, and would consequently be forced up, taking with it such salinity as it had acquired from the contact.

Another and an obvious explanation would be that the mountain-springs pass through a formation of salt rock.

On my return to the boat no fish had been caught; the fisherman said that one or two fish had just nibbled at the lump of bread on his hook, and that all the others had been driven into the weeds by the heat of the sun, and that nothing but dynamite would get them out.



## CHAPTER II.

### CANDIA TO RÉTIMO.

THE mountain of Strómbolo rises to the height of 2,650 ft., and on its southern side lies the Strómbolo Plain, about 1,500 ft. above the sea. A few hours from Candia you may camp as we did on this plain, and go on from there to Rétimo.

There is not very much of interest to mark the way. You can ride out of Candia by St. John's Gate; with its Medicean inscription and its modern barracks up above, follow this broad high-road, cross the river Gióphyros and, immediately after crossing a second stream, strike up to the left into the hills.

Two hours from the start you reach a group of fig-trees by a well or spring called Silvili. Over the fountain is a portico and the remains of what may have been a church.

Pashley\* calls it a "ruined Khan." He tells us that Theódorus, a Cretan chieftain, during the early part of the Christian revolt, was Commandant of Mylopotamos and Malevisi. He met the Mohammedan forces at Silvili, and fought from three hours after sunrise till two hours before sunset, when he was singled out by his rich dress and arms

\* *Travels in Crete*, I 165.

and killed by the Arnaut cavalry. Half-an-hour's ride beyond this spot you are on the plain.

The traveller will find two wells a little removed from the left-hand side of the pathway: one is shallow, with bad water, one is deep and its water is good. The wells are surrounded by cornfields closed in by stone walls. In an angle of these walls we slept.

On leaving the Strómbolo Plain one traverses a very long divide. It takes an hour to ride across it and reach the village of Dhamásta, which stands at the head of a long continuous valley that runs nearly the whole length of the province of Mylopotamos.

This valley is drained by the river of the same name, which rises at Dhamásta, and lower down receives tributaries from Anoya and the mountains round. In spite of its length this river was then dry.

Dhamásta does not impress one favourably: it seemed to me a dirty village, and though it was Sunday the folks were quite unkempt. The valley that runs from it is very pretty—a smiling, pleasant place. There are few Cretan trees that do not flourish here. I saw poplar, plane, hawthorn, wild pear, carob, and here and there a pine and a cypress. Tournefort, however, did not find this a good botanical district. He says\*: “The 27th of May we travell’d but seventeen miles, and stopt at Dhamásta, another Town, the Champain

\* *Voyage into the Levant*, I 40.

whereof look'd as if it would afford us matter for Simpling ; but we were miserably disappointed." The place swarmed with swallow-tail and other butterflies.

At first this valley is rather confined, but about six hours below Dhamásta it begins to open out, and then on the west Ida comes into view, and even on this 27th of June some snow still showed upon its side. On the left hand and in front lie the distant peaks of the White Mountains. The upper part of the river was now quite dry, though the sibilance of distant cicadas made more than once a momentary delusion of the sound of rippling water.

This district was very much under the influence of the Venetians, and from one point of our pathway I saw in the distance seven or eight specimens of the stone-pine (*Pinus pinea*), a tree they must have introduced. I am told that there is a fine specimen of one of these trees in the monastery garden at Arkádhi, and that there are others here and there ; but the native conifers of the country are the Aleppo pine and the Corsican pine (*Pinus halepensis* and *P. Laricio*).

Owing to this want of water we found no possible camping-ground until we reached the village of Pérama. The stream is now crossed by a bridge, but this is evidently more modern than the village, since the name Pérama means a ford. Near this village was a well by the side of the road, and, a little removed from it, a line of olive-trees by a footpath.

Under one of these olives we made our beds. For the second and last time in Crete I was troubled by mosquitoes ; they annoyed me so much that during the night I moved my blanket and slept on the footpath, greatly scaring in the dim light of the early morning a traveller and his donkey who came along that way. I do not advise future travellers to stop here, at any rate unless they have tents, for, though quite out of sight of the village, it is rather too near the public way for comfort. Earlier in the year water would be found higher up the valley, and I think I saw a better place a little lower down. However, the Péráma people were very good in not coming to bother us at all ; indeed, as it is only some fifteen miles from Rétimo, they must be pretty well used to seeing strangers thereabouts.

Near Péráma is a celebrated stalagmitic cavern called Melidhóni, which was sacred to Hermes. In this grotto some three hundred Cretans were smothered by smoke by Khusein Bey in 1822 or 1823.

Our bivouac was at some distance from the spring, and a lad of about twelve years old attached himself to us and made himself useful in fetching water. The boy was in very poor condition, and was pretty well starving. His story—it seemed a true one—was that his father and his stepmother had driven him out and refused to support him, so that he slept in the fields and picked up what food he could. He came with me next day to



Rétimo, where I was able to start him as a shoe-black under the kind guardianship of the proprietor of the Hotel Arkádhi.

The journey from Péràma to Rétimo needs no particular description; it runs along a coast-road that is rather featureless.

## CHAPTER III.

### LAKE KURNÁS.

THE sea-port of Rétimo lies upon a peninsula, and as the road which runs westward from the town winds upwards and round the little bay, one looks back upon a pretty scene of white houses roofed with red, and a few boats rocking on a blue-green sea. Very soon the broad new road narrows to a mule-track, and you rise into the hills, pass the village of Prinós (the Cretan name for the ilex-tree, though I saw no ilex here), and struggle up to the Geráni. Geráni lies on the shoulder of the Bad Hill, a mass of rock some three miles long which borders on the sea. There is a well-used road on the sea side of the Bad Hill—it is indeed part of the main road from Candia past Vamos to Rétimo—but we cut the chord of the arc, coming down again to the sea near Petrea, and paid for it by a very rough journey.

Geráni is a crooked little hill-village, and here an old man entered into conversation. He was just like some old bird; his nose was hooked, his eyes were piercing, and his hands like claws. He gave us water, and warned us, saying, “This is the last good water you will get. All the water from here

to Dhrámia gives fever." So we zigzagged down the steep hill-side, all dull blue rock and a few carobs, till we came again to the sea.

Then we had nearly three miles of heavy work along the sand, and presently fell in with a party of villagers coming along on their donkeys. They could not but wonder at our having come from Pérama, and said they had never heard before of such great journeys being taken; that they had only come from Rétimo market, and that, they thought, was a good long way, and indeed they felt very tired. They could not understand why I, who had a horse to ride, should walk in the deep sand; and when I tried to explain that I only walked to save the horse, they regarded me pityingly as a thing of poor weak intellect. These men did us a good turn, for understanding that I proposed to sleep that night near Dhrámia\* and to go on early next morning to Lake Kurnás, they warned me that Dhrámia was not good to sleep near as it was very malarious, and said that they themselves lived in the villages near Lake Kurnás and I had better come with them and they would guide me to the lake.

This offer I accepted, the more readily as it was then seven o'clock in the evening and would soon be getting dark. So we left the edge of the waves

\* It is possible that we should have found Dhrámia deserted, for Pashley says it was in his day, "a little village entirely occupied by Sphakians, who descend from their houses on the higher ranges of the mountains in the month of October or November, and remain until the following April." *Travels in Crete*, I 73.

and turned inland. Presently we skirted a long piece of cultivated land, the like of which I saw nowhere else in Crete. For the water from two streams was turned into channels divided and subdivided by narrow causeways, like our watercress beds in Hampshire. Tobacco and other plants flourished in these wet surroundings. We were a motley party as we strung out in single file, threading our way along a narrow footpath, the donkeys leading and the horses bringing up the rear. It grew darker—we could barely see the man in front. Now and again we lost a companion who would go off to his home that was out of sight. We crossed gully after gully which the donkeys managed easily from old habit, but into which our horses blundered and slid. Then on the summit of the hill before us appeared a blood-red arc, and the moon rose into view. As it cleared the hill it changed colour and grew less; blood-red at first, it was now orange, and soon it had climbed the sky and looked down upon us clear-cut, cold and white.

There was dew upon the trees and grasses; I could smell it from the saddle, and see the wet shoes of the donkeys twinkling as they walked. Then the air was filled with a balsamic scent, and we brushed against bushes higher than our heads, and full of white flowers that looked like little stars. I picked some from my saddle: it was myrtle. That part of our journey was like a dream. We rode in silence, and after a hot and arduous



day — after the rocks and the sand — it was very pleasant to ride quietly like this through a gentle, easy country, among the scented myrtle-bushes, in the cool air, and in the beautiful silvery light.

It was now nearly ten o'clock, three hours since we had left the sea. We rode up a little hill and then the men stopped and, pointing towards a dim, indistinguishable hollow—said, “the lake,” and went off to Múri, their village. After choosing a sleeping-place on the side of the hill, well above mists and mosquitos, I went down to look at the lake. Picking my way through a dense growth of myrtle-bushes, I came upon a goat-path which led me down to the water-side. It was a rough and rather steep descent, and so dark under the fringe of myrtle that I all but stepped into the water before I knew I was there. But on the lake and on the mountainous hill beyond the moon shone brightly and the mountain was reflected in the lake. The water was quite unruffled—it was like a mirror in the moonlit night. I could not hear a sound of any kind—not a bird, nor an insect, nor even a frog; the stillness of the tarn was absolute, as if under an enchanter's hand.

When I rejoined the camp I found two new men of Múri there. They talked for a long time and told us things about the lake. They did not go home again, but slept where we slept. Why they had left the comfort of their homes to lie out with us on that stony hill-side I cannot say. I

fancy it was nothing but curiosity—to see and be with strangers.

They said that every five years, with perfect regularity, this lake overflowed and its waters poured down towards the sea. I think this would mean a rise of over fifteen feet. When this happened great eels were carried off and left lying about the lands. They believed the lake was bottomless. They had taken a boat and had failed to find the bottom “with a 45-metre line.”

This periodic rising is no doubt due to the same cause that accounts for some of our own intermittent springs; the great reservoirs up in the heart of the mountain gradually fill, until there comes a point where the water reaches the level of the top of a curved passage leading from it. Then a syphon action is induced, and the stream continues to flow until the reservoir is emptied down to the mouth of the exit.

The next morning the mysterious charm of the shadowed and moonlit tarn had given place to another that was frankly beautiful. Here and there its surface was just flecked by the lightest of breezes, elsewhere it reflected faithfully the mountain masses that rose straight from it on its western and southern sides. Its northern and eastern sides were clothed with the dense growth of myrtle through which I had found my way the night before, and where this ended there was a tangle of flowering plants finer than any I ever saw elsewhere in Crete. Butcher's broom



LAKE KURNÁS; NORTHERN END.





(*Ruscus aculeatus*) grew most robustly, and the *phascomilia*, instead of being a plant about three feet high, or less, as it is at Thériso and in other places, was as high as my head, with great stems like those of an old furze-brake.

The water was clear as crystal, and at the south-western corner, where the springs that feed the lake came welling up with great swirls of displacement, it was like green glass, and seemed to be of a profound depth. Yet, for all the water that enters Lake Kurnás no stream appears to leave it. The longer axis of this lake is from south-west to north-east. I am unable to give its size, but it took over half-an-hour to walk slowly round it. Because of its great depth and the rocky character of its surroundings there are no marshes by it; what seem in the photograph to be marshes are really masses of myrtle bushes looked at from above.

Lake Kurnás is altogether a beautiful and most interesting thing; I was very glad I had seen it.

## CHAPTER IV.

### THE RAVINE OF ASKÍPHU.

OUR next point from Lake Kurnás was Georgiópolis, as the people have now re-named it after their quondam ruler Prince George of Greece. Its older name is Halmyrós, for here is situated another of the salt-springs of Crete. From the lake to Halmyrós is a very pleasant ride: the track takes you through a bit of oak country that strongly recalls our New Forest; indeed, if you substituted bracken for cistus it would be exactly like it.

This Halmyrós differs from the one before described. Instead of a powerful spring there is simply a little stream running out of the rock; instead of the deep tarn a reedy marsh; instead of the river, small runnels from the bog. The water at the time of my visit was not distinctly salt, it had only a peculiar, flat, dead sort of taste.

The horses had a hard time of it getting to Alíkambo, for the road had in places been washed away. One moment we were sliding down a slanting rock face with no foothold, and the next I had tumbled into a fountain, to the uncontrollable delight of the women who were dipping their

water-jars there. The hard-boiled eggs we had brought from Rétimo had given out, but we had the usual black bread and olives, and our particular solace on this day was some cucumber which the mule-boy had obtained from a passer-by. We ate it as we went along. At last we came out—at the top of 1,000 ft.—near Alíkampos, a village on the road from Vamos to Askíphu. This in olden days was the only road from Canea to the southern shore.

Along this road—by road meaning of course a mule or horse track all rough with stones, and, in this instance, often lying between stone walls—it is an easy ride and a pretty one. There is nothing in particular to record about it until it comes to the great ilex forest in the Krápi district. You have on your right hand the great mass of the White Mountains, and the ilex covers everything as far, or nearly as far, I think, as Askíphu; it runs up into all the side valleys and up the mountain almost as high as the eye can reach. It would seem that, in the province of Apokóróna, these ilex forests only clothe the eastern side of the White Mountains; at any rate I saw none on the Hómalo—the western side—nor in the Mávri district. There its place is taken by cypress.

But there seems to be some cause for fear lest these forests, or a great area of them, may die out. For a long way (at a guess for some four or five miles) we rode through forest with scarcely a leaf upon the trees. To right hand and to left, even

away up the branching valleys that ran up to the mountain ridges, and along the ridges themselves, the forest looked almost as if a fire had swept across it. This was entirely due to the ravages of the larva of the Gipsy moth (*Ocneria dispar*). This is a day-flying species, and the air was full of them. The leafless branches and twigs of the trees were covered with web, in which the chrysalides were thickly set. Further on we came to another tract where the trees were actually dead. In Krápi there is a little wayside solitary drinking-shanty, or coffee-house—a most unusual thing in Crete—and the man who kept it informed me that these dead trees had been attacked two years before. If his information was correct, it really looks as if a great part of the ilex forest of Apokóróna may be doomed. A curious feature in this process of devastation was this, that here and there in the dead waste of leafless trees stood a single tree, healthy and green and quite untouched by the caterpillars. Why was this?

The head of the Krápi Pass to which we had now risen from the sea is 6,070 ft., and is just on the dividing line between the province of Apokóróna and that of Sphakiá.

The village of Askíphu which we saw on our right hand is placed a little off this track, on the edge of a cultivated plain which lies in a hollow of the hills and is about three or four miles round. We did not visit Askíphu, but pushed on for another hour till we reached Nibros, which is almost at



the head of the great ravine that forms one of the two entries to Sphakiá from the sea. If a visitor should arrive at Nibros as I did, at the end of June, I hope he may have equally good fortune and find the large white-heart cherry-tree by the cottage as full of fine fruit. We off-saddled at Nibros, remained there for an hour and a quarter, and made some tea and ate our cherries in a corner of the wall. Then we saddled up and were almost at once in the ravine of Askíphu.

Although this ravine in beauty, grandeur, or general interest will not for a moment compare with the gorge of Ruméli, it is in its own way extremely remarkable and has certain features that set it by itself.

The head of the ravine is over 2,000 ft. above the sea, yet you do not drop into it down a precipice as you do when you enter the gorge of Ruméli. On the contrary, you ride down quite a gradual slope which is continued until you reach the sea level, which is, at a guess, between two and three miles away. We left Nibros at 3.30 and reached the gorge in, I suppose, ten minutes, and did not emerge at the other end until 6.15. Allowing for a little delay on the way through, this would make the actual traversing of the gorge, at a horse's slow walk, a matter of about two hours.

Once in the ravine you are shut away from any daylight except that which comes from the slit at the top. For the characteristic feature of this ravine is its extreme narrowness. It seems as if

you could touch the walls simultaneously on either side, and in one or two places I believe one actually could. The walls rise quite vertically. No stream runs through this ravine, though doubtless in the spring water drains through it from the plain above.

As we rode down we heard a curious mewing noise, which I thought was the call of a wild cat, but it was really made by a party of jays (*Garrulus krinecki*). Though the ravine takes a true line from north to south it does not run straight. You can seldom see far in front of you, but are constantly faced by perpendicular buttresses of rock, round which the track winds. Towards the foot of the rock there is some evidence of the action of water, but water has probably had but little to do with the formation of this ravine, which no doubt originated in a great structural fault. Here and there is a certain amount of folding in the rock, but for the greater part it shows little sign of disturbance. The ravine is so narrow, and its walls so straight and high (they are, I suppose, over 1,000 ft. in height) that an easterly or westerly sun cannot penetrate. The eye gets so accustomed to the gloom that one finds the sunlight intensely dazzling as one emerges at length on to the open land by the sea.

Here we turned to the right for the town of Sphakiá. As we went riding along I saw a very large spider running over the grass, carrying in its mandibles a long thin hornet-like insect, which,

allowing for difference of shape, was as large as itself. Jumping off my horse I pressed the thorax of the spider with the point of my stick until it released the hornet. The insect was quite uninjured, and was so bold that instead of flying off it circled round and round just above the grass looking for its enemy. Having no butterfly net I cut over the insect with my stick and brought it and the spider home.

Just after seven o'clock we rode into the little town of Sphakiá, where for the second time I put up in the barracks of the Civil Guard. The captain in charge was a nice kind fellow, who apologised for Sphakiá as a miserable place where nothing worth eating was to be had. He said he could get neither meat nor eggs, and insisted that I should eat the supper prepared for himself, which consisted of rice boiled in milk. He also tried hard to induce me to occupy his room, but to rob a friend of both his supper and his bed seemed to me too graceless, and I slept out on the gravel of the little terrace that overlooks the sea. And here the hours went by peacefully enough.



## CHAPTER V.

### SPHAKIÁ TO RUMÉLI.

THE more obvious way to start on this journey would be by taking the track that leads from Sphakiá to Anópolis. I sent the horses up that way, and from what I heard from those in charge of them, it must be a very vile and arduous journey.

To this I cannot speak because I took a different route, but Pashley, who covered the same bit of ground, though he took it the reverse way, describes in a few sentences its precipitous character. He says \* : “ Soon after my horse’s roll, and my escape from what would have been at the least a very disagreeable fall, we arrived at the summit of a precipice, the zigzag descent down the face of which is so steep, rocky and dangerous, that I was greatly disposed to send Maniás back with my horse, and to proceed with my mule. It was, however, late ; and since I might be benighted before reaching Haghía Ruméli, and was also totally unacquainted with the wild region before me, I determined to attempt to get down with the two steeds. This zigzag road winds along the face of a rocky and almost perpendicular precipice of very considerable elevation. Had my horse missed his footing at

\* *Travels in Crete*, II 258.



any one of the turns of the zigzag, it must have been his last trip."

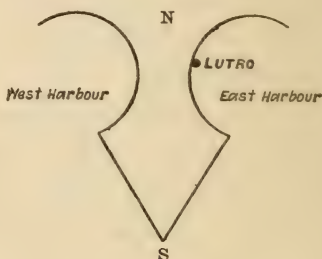
I was anxious to have a good view of the haven of Lutró, where "Phoenix" (Phoenix) stood in St. Paul's day. The captain of the Guard most kindly volunteered to come with me in a boat and show me Lutró, after which he would take me up to Anópolis, where I could join the horses.

At four o'clock therefore on the following morning I rolled up my blanket, made myself a cup of tea over the spirit lamp, ate a piece of native bread and was ready to start. The yard that lay below my terrace was full of the sleeping forms of men of the Guard. My chance for a photograph of Lutró depended entirely upon the sun being still to the east of that harbour, so I was glad when an orderly, wakened by my movements, went to rouse the captain, who shook himself into his clothes with such speed that by 4.30 we were stepping down over the slippery rocks and into a boat manned by two men.

I was glad of the opportunity of observing at such close quarters these rugged and menacing mountain-cliffs, their bases pierced here and there by deep caves. The sea was quite calm, but we climbed up and down a long swell until at the end of an hour the captain, who was a bad sailor, preferred to land; we therefore pulled into a little cove and went ashore. Just before we landed, the captain had pointed out that all along a narrow beach spring water pours out of the foot

of the mountain. After a half-hour's walk we came to a point from which I was able to take my first photograph of Lutró Harbour. In the glittering morning light it looked a bright and cheerful little place, its few red-roofed houses placed near the water in the curve of the bay, where the rocks give place to a tiny beach, for the bay called Lutró is shaped much like a horse-shoe. Its looks a very snug anchorage, as indeed it is ; it is the only place on the southern coast of Crete where a boat can lie almost in any weather and at any season of the year.

Now the land on three sides of this anchorage consists of the mainland and a promontory. The main axis of this promontory lies about north and south. Leaving out the small irregularities it is expressed quite fairly by this diagram :



There are *two* harbours, one on either side of the peninsula of Phoenix. It is true that the westerly one is dangerous to enter because of rocks ; but still, there it is, with twenty-five fathoms of water for a boat to lie in.



LUTRÓ HARBOUR, ST. PAUL'S "PHENICE," SHOWING THE TWO BAYS.





After seeing the place itself one wonders whether what St. Luke had in his mind was simply the fact that the harbours of Phoenix faced different ways, affording shelter from either wind.

They say that the remains of the old city of Phoenix may still be seen on this little peninsula, which, I should judge, would be about half a mile wide, but I had not time to visit the site, contenting myself with the excellent bird's-eye view obtained from various points in the ascent to Anópolis.

The name Anópolis, the "upper city," was used in contradistinction to Katópolis—the "lower city"—i.e. Lutró. These two towns once played a very leading part in the old Creto-Turkish struggles. Pashley\* says that the villagers assured him that "the two possessed between them no less than seventy-two thousand troops." When I was there the Civil Guard described to me the military exploits of a celebrated leader from Anópolis (his descendants are living there yet), who was eventually captured and skinned alive by the Turks.

Anópolis lies, an ancient ruin, on a plain very high above Lutró and now gives its name to a group of villages and to the district in which they are placed. The ascent to the plain of Anópolis is up a cliff about 2,000 ft. high. Although we left the base of this cliff at 6.15 a.m., we did not reach the top until 8.15 a.m., though, to be

\* *Travels in Crete*, II 193.

sure, this includes a few pauses for the sake of taking photographs. The morning became hotter, and I found the climb up the zigzag path of the perpendicular ascent distinctly exacting, for a cup of tea with a bit of black bread at 4 a.m. is but a poor defence against an hour on the sea and hard foot-work after it. My friend the captain of the *Guard* completely put me to shame; living in *Sphakiá*, spending all his time in the mountains and being, at a guess, barely on the wrong side of thirty-five, this officer was possessed of great agility, and in the thinnest of boots went up like an ibex.

The view from any point in this ascent is really very fascinating. The mass of the land is low in tone and grimly rugged in character; the mountain-sides are grey, touched here and there with umber, and grey the little promontory and its few dotted olive-trees. There is no colour on the old fort that stands on the ridge where *Phoenix* stood, no colour anywhere except at that one point where the haven lies, a deep-set gem. Here the houses are roofed in red, the limpid water is blue and green, and is so framed in by its dead surroundings that, looked down upon from the heights above it, it seems a piece of brilliant enamelling. Against the rocks of the southern end of the peninsula a long swell wears itself out in a fringe of white, and beyond this the sea grows dimmer in a gathering haze of heat, until beneath a little low white cloud lies an island which





LUTRÓ HARBOUR AND SITE OF ANCIENT PHOENIX.



as every child knows "was called Claudia"; now it is known to the Cretans as Gavdos.

The bay on the western side is marked on the chart as Phenika Bay: when I asked its name of the captain I understood him to say it was called Dhiamiskári. But conversation during this ascent was rather breathless, and my knowledge of colloquial Greek so extremely limited, that he may have meant something quite different.

On reaching the top after a two hours' climb, we found ourselves among the stone walls and ruinous houses of the village of Rhíza, and presently reached a guard-room with a mulberry-tree outside. The horses met us here; we had some bread and water and left at nine o'clock to the minute for Hómalo.

Now the journey from Sphakiá to Hómalo is called a ten hours' journey—five hours to Ruméli and five more on to Hómalo—ten hours is the time allowed to the men of the Civil Guard. But it is one thing to go on foot and unencumbered, just picking a mouthful of food as one goes along, and quite another thing to go with pack-horses. On foot you can make up for a steep ascent by moving quickly down the hills and gorges. But the walking pace of a pack-horse is very slow, and to go down hill is no gain to him, but rather the contrary; probably he goes more quickly up than down a mountain-side. Besides, horses have to be baited, and contrary to Cretan custom I always let them cool off at least once a day, and then removed

the packs and saddle so that they could roll and cheer themselves up a little. All this takes time. As a matter of fact the journey lasted 20 hours, for though I had left Sphakiá at 4.30 we did not reach our sleeping-quarters on Hómalo until 12.45 on the following morning. Leaving Anópolis therefore at nine o'clock, we still had close upon sixteen hours before us, though this we did not know at the time.

Soon after leaving Anópolis one turns westward, and has then to cross the ravine of Arádhena. The eastern side of this ravine is so precipitous that if a horse is, say, twenty yards in front of you and turns but one corner of the zigzag track, you cannot see it again till you arrive at the bottom. Still, since this road is a fairly wide one, as mule-tracks go, the descent would have been easy enough but for the fact that a gang of men, by way of improving the road, had paved it till it was as slippery as polished marble. This brought my horse down on his haunches, and on this steep and slippery surface he could not recover his footing. He slid and lurched about until he got his head over the edge of the ravine, and I found myself in imminent danger of being projected down the side of this steep precipice. So lying back in the saddle I pulled as hard as I could, and he swung over again into the path. Then I slipped off over the horse's tail, and relieved of my weight he slid himself against the rocks and plunged till he regained his footing.

After one has emerged from this ravine, one comes into a district of pine-trees. At about one hour from the ravine we reached a well of very doubtfully-coloured water. Here we baited, ate some olives and sardines, and gave the horses more than an hour's rest. Some of the pine-trees which we passed were very fine, but all had been cruelly hacked about for resin.

We left our well at one o'clock, and at three o'clock we reached the sea. But much lay in between. In order to reach Ruméli we had to descend a spur of the White Mountains. This spur at its junction with the central mass of the mountain is 8,000 ft. high. I do not know its height at the point where we descended, but from a few available data should judge it at about 3,000 ft. First of all the krantz or scaur had to be negotiated. This was something like the descent of Arádhena over again, but the zigzags were shorter, and the track exceedingly steep and narrow, and made more difficult by boughs of trees that here and there projected over the track. No one, of course, not even a Cretan, could ride down there or would be mad enough to attempt it.

I forgot to mention that the kind-hearted captain had sent with us from Anópolis one of his men. This fine young Guard was very active, and was possessed of great bodily strength. This was fortunate, for the horses, with the weight of the packs, required much steadying at the corners of the path and they might easily have shot over the



edge. From Anópolis to Ruméli was this gendarme's usual beat, and he told me that though he had seen donkeys come that way he had never before seen a horse attempt it, though I have since heard that a horse was taken up it some few years ago. This vertical scaur may have been six or seven hundred feet high, the rest was chiefly one immense talus slope. Fortunately the narrow track across this slope which reached down to the sea had lately been improved, so that our way across it was not so difficult as, from our former experience on Mount Ida, I had feared it might be.

We emerged at the side of the talus slope at 2.30 p.m.—one hour and twenty minutes since the descent began. Looking back up the long white slope of this stupendous rock shower, and again from this to the darker line of the steep wall-face of the topmost dizzy scaur, it truly seemed most marvellous that any human being could ever have thought of attempting to contrive up such a barrier a pathway for a beast of burden. But necessity and the fear of the attacks of foes have made the way. The three approaches to Sphakiá are indeed in keeping with the wild character of that country and of its fighting breed—one up a mountain-face and two through ravines.

Half an hour later we had reached the sea. It had taken us exactly two hours to this point from the well near the top of the mountains. But we had not yet finished this stage of our journey; we had still one hour and a half before us until



we could reach Ruméli. This part of the way lay along the sands.

I was walking along with our pleasant young Civil Guard, when he stopped and pointed out to sea: "Out there," he said, "there is good water." Asked what he meant by this, he repeated: "It is good water; good water to drink." He told me then that one kilometre and a half from the shore there was a place where the water is rough, and that fishermen draw it up in their pitchers and drink it. At once I recalled the remark of the skipper of the *S. Nikolas* who, when we were steaming opposite these cliffs some six weeks earlier, had pointed down over the vessel's side and used the same words, "Good, good water there." I had not paid much attention to the skipper's remark, as I supposed he meant it was good water to anchor in—good holding. At that time I had picked up so little of the language that I could not discuss any matter. But now I remembered his words and saw, of course, that he was referring to the same phenomenon of a fresh water spring in the sea. This curious displacement of salt water by fresh water at some distance from the shore is not without parallel elsewhere. It occurs off the coast of Australia, and somewhere, I am told, off that of South America.

At 4.30 p.m., twelve hours after I left Sphakiá on the morning of this day, we reached Ruméli. Here the young Guard left us and returned by the way we had come. Nor was there any rest for us.

It might have been supposed that a twelve hours' journey would have been sufficient, but it was extremely important that I should reach Canea by the evening of the following day. There was then nothing for it but to camp that night on Hómalo. After a halt, therefore, of thirty minutes we left, to travel up the great gorge of Ruméli or Samaría.

## CHAPTER VI.

### THROUGH THE GREAT GORGE.

THERE is usually good drinking water to be had just before you reach Ruméli, at a little place called Kateríni. The men ran off to get some, but returned disappointed, saying it was “gone”—meaning, no doubt, dried up. But soon we crossed the rapid river that runs out from the gorge, and afterwards got plenty of clear cold water at the Guard-house at Ruméli, where we stopped for half an hour before going up the gorge. A good-natured sergeant and his men were sitting on settles round the door and smoking.

The sergeant having heard all our story from our young Guard, sent him back to Sphakiá and kindly told off two of his own men to go with us. I felt rather averse from this addition to our party, but as he explained that it was no easy matter to get through the gorge with our pack-horses, that the river, which was then pretty full and ran very swiftly, would have to be crossed at various points, and that night would have fallen before we emerged on the top of the mountain, I was persuaded (and, as it turned out, very luckily) to accept his help. We waited, as I said, for half an hour and we left at five o'clock.

Ruméli is not actually in the entrance to the gorge, but is situated upon a small side-stream that runs across a piece of open ground and enters the river at a point which is just clear of the gorge itself. One traverses this open ground behind Ruméli, following the river up, and insensibly the mountains narrow to the gorge. This condition is quite different from that of the Askíphu ravine, which ends as suddenly as it begins.

The eye in so confined a place can form no judgment of the height of these towering walls, and there are but few data upon which to base even a plausible estimate. Possibly they are from 1,000 to 3,000 ft. in height. The plain of Hómalo is about 4,000 ft. above the sea, and the long ascent of the gorge may be said to begin at Ruméli, six miles below. But this is misleading in a guess at the vertical height of the walls, because the gorge does not rise in that distance to the height of Hómalo. It is again continued for nearly as great a distance with a slightly more easterly trend. Or it would be more exact to say that it takes at first a direction that is N.NW. from the sea, and at a point some six miles up it turns nearly due north. At this point there is a small entering indentation on the west side, and up this goes the track to the plain of Hómalo—up the perpendicular face of the rock. And this fact again helps us but little in our calculation, since the mountain itself grows higher as we ascend. Some of the highest points in the whole





GORGE OF SAMARÍA.



White range abut upon this gorge. To the right and left of the actual entry to the plain are points in the mountain respectively given as 6,720 ft. and 7,610 ft. in height.

The pine-trees stop at the gorge. There was, I remember, an odd pine or two not far from the entrance (a straight-run pine and a straight-run cypress were growing side by side); but cypress, the Mediterranean cypress (*Cupressus sempervirens* var. *horizontalis*) is the tree of the Ruméli gorge, just as the pine is the tree of the ravine of Askíphu. Some of these trees are very old and twisted, some are magnificently fine and straight, many have been lopped and spoilt. We entered the gorge when the sun was low, too low to find its way into the abysmal chasm, so that we moved into a great solemnness; only the swirl and the sound of that hurrying river gave a sense of life to the place. Yet there was colour—colour in the red of the broken rock masses, in the clear emerald of the weedless pools, in the dark sap-green of the sombre trees. Not one lateral cutting opens into the gorge on the western side throughout its entire length, nor on the eastern side until one comes to Samaría, at which point a secondary gorge branches off to the north-east, leading up towards the top of the White Mountains. It is true that at two points up the gorge there is on the eastern side a bay with green slopes and a little stream of soakage from the snow, and another, already referred to, higher up on the western

side, but these are merely indentations in the main wall.

The great body of the mountain through which this gorge has been cut is of limestone, but here and there are masses of conglomerate. This pudding-rock was like concrete, and had the same water-resisting power. The action of countless ages has done relatively little towards eating it away. The limestone is smoothed down, is grooved as by a chisel above the conglomerate and below it, but this natural concrete stands out in great shelves to all appearance unaffected by the agencies one sees at work.

It is not difficult to form a reasonable theory of the origin of this great cleft in the mountains. The central thrust of the upheaval (as Spratt has shown) occurred in the south-west of the island, the inclination of the strata therefore lying from south-west to north-east. This can be seen in many parts of the island. But in addition to this the ground appears to have sunk on either side of the point of application of the pushing forces from below. This has resulted in folds in the rock. As there is no transverse section in this gorge it is not possible to trace clearly the angle of the lateral dip, that is to say the dip at right angles to the main line of upheaval. Here and there, none the less, are indications that the strata does incline respectively to the westward and to the eastward on either side of the gorge. But if a process of upheaval be pushed a little too far the rock will burst and



a crack or fault be found right along the ridge of the fold. Then frost and water get to work and the crack is gradually eaten downwards until it may be, as in this case it is, well over a thousand feet in depth. The river, then, at the bottom of the Ruméli gorge is probably running along the top, or what represents the top, of a fold.

If we neglect the trivial streams already spoken of as running in on its eastern side (though even these at times pour down much water) the river of the gorge may be said to have three sources. One of these is in the head of the direct gorge to the north, which is continued as the main stream, while a second is at the head of the long arm before described as branching off to the north-east. This stream joins the main stream of Samaría. Both these would seem to be directly due to the melting snow, but since I did not visit the head of these two gorges I have only formed this conclusion from the general contour of the ground. But the short western bay or indentation, that recess up which the mule track leads to Hómalo, also had at the time of my visit a stream and a waterfall. It appeared to me that this water did not come down from the top of the mountain, but flowed out from some point in the rock lower down. This point lies exactly under Hómalo, and I think it extremely probable that it is the exit of one of the great drains of the plain. I have already spoken of these drains, and have told how the water formed by the melting snow finds an

exit down through fissures in the limestone-rock, often to reappear at a considerable distance, sometimes even to reach the sea without any intermediate reappearance.

We progressed but slowly: the actual track we followed, though often covered with fallen rocks, was not bad as tracks go in Crete, but many times it ended against a wall of rock, and then we had to cross the stream. This, as the sergeant had warned us, was no simple task, on the contrary it was often a case of touch-and-go. Indeed, I am sure it would not have been possible for us without the help of the two Civil Guards. As they often had to cross the stream in the course of their ordinary duties, and always on foot, they literally knew every stone, that is to say every stone that was visible. Here and there were natural rows of stepping-stones—large rocks and boulders—by which we crossed. They showed us how to take these to the best advantage, and we only had to follow them as well as we could. But under the water also lay great blocks and boulders, that rolled when the horses trod on them—and the water ran like a mill-race. I was merely a looker-on, and can only say that the way in which these men got the horses across was admirable. Had the horses been left to themselves they would inevitably have lost their courage and been swept away down the stream. When one of the poor beasts was floundering about, above its girths in this tearing torrent,

I often looked to see it give up the struggle and sink down in the water ; but always at this crisis the voice of encouragement and a pull at his bridle would cheer him up to new efforts, and he would manage to scramble out. At one point about half-an-hour's distance from the entrance is a narrow passage between the rocks called The Gates ; it is only 10 ft. wide. Here, therefore, we had to move up actually in the middle of the stream, but this work, I think, was really easier for the horses than the crossings, where the current met them sideways.

I have sometimes thought when writing down these things that I must appear to have been very unkind to my animals, or at least quite indifferent to their comfort. And to an English reader it must needs seem almost cruel to take out a horse at dawn and not to give him his night's rest until one o'clock on the following morning—to keep him out, that is, for a stretch of twenty-one hours, as happened in this case. But in the first place this was quite an exceptional spell of work. We never before made anything like this journey in point of time between two bivouacs. Twelve hours was the usual length of my day's journey. Again not only is a Cretan pack-horse quite different from the average English horse, since not only is it always in the very hardest condition, but it seldom goes out of a walk. The pack-horse I had on this occasion was a powerful beast and was carrying a light load, for my blankets and



valise weighed very little, and the provision-box was all but empty of food. I do not suppose I was in the saddle for three hours all that day, while the horses had altogether three hours' rest.

We had been journeying thus for about two hours, and had just reached the top of a rising in the pathway, when suddenly there burst upon us what seemed to be the noise of a large pack of dogs, and soon afterwards we saw below us a cottage, and two large dogs who were barking loudly. There were no other dogs—the echoes had multiplied their cries. This spot was Samaría, the only inhabited place in the gorge. The cottage stands on a little spur that runs down to the river, and from it the side-gorge stretches up into the mountain with green slopes of grass. It is inhabited by a hunter-shepherd and his family. I saw a woman with her goats, and heard one of my men say “Agrimia.” Agrimia means game, and is applied to the wild goat, and I had been always looking for these animals in Crete; so now I gazed up into the mountains expecting to see them on some ledge of rock. But seeing nothing, I asked the men, “Where are the agrimia?” And they pointed down where the woman stood with the goats. I realized at once that two little kids she was feeding on leaves were none other than the young of the so-called Cretan ibex. A tame black common goat was standing with them, but a glance was sufficient to show they were not hers. There was no mistaking them: self-coloured, with a dark



stripe down the back, with beautiful legs and feet and the neatest of little heads, they had an indescribable air of distinction that marked them for the aristocrats they were.

The woman said her husband had shot the mother in March, so the kids were now only three months old. She had brought them up, giving them as foster-mother an old tame nanny-goat. Though not independent of their foster-mother they were now, of course, quite well able to pick up their own food, but as the woman always fed them from her hand on leaves (mulberry leaves they liked best) they scarcely knew how to forage for themselves.

The poor woman was devoted to these kids, and small wonder in that lonely gorge! She said she really could not part with them, she loved them so, and that they never left her, but went wherever she went. However, after a long discussion I made a bid for the kids which overcame her resistance, and she consoled herself, saying "Ah, well, he will get me some more next spring." The kids were mine! The bargain struck included the old nanny-goat, with the undertaking that the shepherd should come to Canea with me, being responsible for the safe journey of the animals to that town. Unless we had the nanny-goat for the wild kids to follow we could not hope to get them along the road, nor would they have thriven without a foster-mother's milk.

It was just upon 8 o'clock when we left Samaría,

and dusk was settling over the gorge. We were now a party of six, and truly a curious group—two mule-boys, two Civil Guards, myself, and the shepherd—a fine picturesque man with a big brown beard. Just as we were about to start, the poor woman taking tearful leave of her little charges, they made a change of goats. The black foster-mother they said had become too unmanageable from always following her active children up and down the rocks, so they substituted for her a solemn old iron-grey nanny who was quite sure to go steadily along.

We left. If we had travelled slowly before, we went at a snail's pace now, for our speed was regulated by that of the staid old goat, led by the shepherd with a rope. At first the goat went in front, but the noise of the horse's hoofs and the talking of the men scared the little kids, so presently I sent the shepherd with his charges to the rear.

The kids ran free. When the old goat bleated they usually came running up to her, and for a yard or two would follow alongside, but then, with a fling of their heads and a buck, these irresponsible little creatures would dance away and chase one another over the rocks. Their activity far surpassed anything I had ever seen or had ever imagined possible of any four-legged creature. They had a great dislike of running on the level, and when one of the immense blocks of rock that lay to right and left of the path stood in a tempting position they would leap on to it and running across jump down

on the other side. Many of these great stone masses had tumbled down from the mountain face, and as they lay there, some of them roughly spherical in shape, no human being, not the finest high-jumper ever known, could possibly have jumped on to them and retained a footing. Yet these small creatures did it with consummate ease: I was absolutely fascinated as I watched them. It is difficult to find words that will give any impression of the astonishing smoothness of their movements over these obstacles. They did not seem to make the effort of a leap, but to ripple over everything, so to speak. They reminded me, more than of anything else, of weasels running over a bank at home, for they gave the same sense of an undulating motion. Once I saw them run to the edge of a shelf of rock and go straight over without any semblance of a pause; they also alighted and ran on in one continuous movement. I see that my note made at the time about this leap says: "20 ft. high I reckoned one jump from a ledge to the ground." That, then, was the impression I had at the time. Whether I misjudged the height or not, the entry shows the prodigious character of this particular drop. The ground in this case was steeply sloping, so that on landing there would be but little jar. One knows that a man on ski can shoot through the air and land with safety many yards below on a slope of snow, whereas if he lit on level ground he would inevitably be smashed up.



The dusk began to gather, and the forms of the little agrimia looked like flying shadows as they darted over the rocks, and for minutes at a time they would disappear and be invisible in the mountain gloom. Then the shepherd would call "Ela, éla, na, na, na!"\* and the little creatures would reappear again by the side of the old goat. More than once one or the other was missing for a long time.

It was dark. I stopped all talking lest voices should alarm the kids; only the shepherd's voice sounded continuously, calling "Ela, éla," into the night. He could not see the kids, he only knew when they were by the goat's side by feeling with his hands.

Gradually in the depths of the chasm in which we moved there came a curious sense of light. The moon was rising somewhere out of sight; it was shining on the mountains all those thousand feet above our heads. It could not light the bottom of this great mountain rift; it was still dark with us, but the darkness itself began to feel luminous, as it were.

But by and by the cold white moon came sailing along the line of the gorge, but always a little to one side of it, so that we were almost always in shadow while much of the other side was bright. It was an enchanting time. The gorge was rather wider here; one looked across

\* "Come, Come, to, to, to," the shepherds' feeding-call. The meaning of it is "Come to feed," but the dependent verb is omitted.



the moon-flashed water, up through bright rock spaces between black shadows and masses of the cypress trees, up, up, until one almost fancied one could trace the moonlit margin of the top of the gorge. The silence was broken only by the old goat's bell, by hoofs and tread of feet, and by the shepherd's call of "Ela, éla" to the kids. And these wonderful little creatures went and came the while—out of the shadows and across the moonlight they followed one another, as untiringly as at the first.

Presently but one came back. In vain the shepherd called "Ela, éla," in vain we sat upon the rocks and waited while the man continued to call. We waited long, but had to give it up at last, the shepherd promising to bring the animals up to Hómalo in the morning if he should get the lost one back. So he turned with the old goat and one little agrimi and went his way to Samaría again.

Three miles above Samaría there is a little monastery called Hághios Nikólaos. Unfortunately it was quite dark when we passed it so that I saw nothing of the great cypresses for which it is renowned. They are considered to be the largest in Crete; I have seen it stated somewhere that one of them is no less than four feet in diameter.

It was not very long after the shepherd had left that we came to the foot of the *cul de sac* up which the pathway leads to Hómalo. This bay

or indentation, as has been said, is rather more than half way up the gorge. The gorge itself continues on and upwards into the mountains on the eastern side of the plain. Presumably the plain cannot be entered from the head of the gorge, or the mountaineers would never have chosen for a pathway a place so formidable as this.

Presently you come to an abrupt mountain-face—a wall of rock. It would be more faithful to say a wall of rocks, for it is not one long smooth rock-face (like that, for instance, of El Capitan in the Yosemite), but a broken face, and advantage has been taken of ledges to make a zigzag path, the Xylóskalo. When one stands upon a turn of the path high up and looks over, one can seldom see any part of the track below ; it is too steep for that. A good deal of improvement had been lately effected in certain of the mule-tracks in Crete, and the men had been at work on this one. In some ways they certainly had improved it, for they had smoothed the track and had squared up the edges. But in one respect they had made it even more dangerous for animals than it was before, because the points of the angles had now been continued out for several paces. This had been done to make it possible for laden donkeys to pass one another. But at night it had a dangerous result. For where it was quite dark, as it often was under the shadow of great overhanging cypresses, there being no wall or rim of

rock to stop a traveller, one was apt to walk on into this continuation, and might easily have gone over the edge. It was even worse, if possible, in the moonlight, for then the path looked so plain and bright that a horse would walk right into this blind end. This happened twice to the grey pack-horse. Led by a tired man who did not notice the turning, he walked into one of these traps. I did not see it—I was behind, and only knew that something was wrong by hearing the fall of stones down the precipice and the shouting of the men. But they told me that in the attempt to turn the horse round on this narrow bit of path he got his hind feet over the edge and in his scramble displaced the rock. In describing what had happened they assured me that when his hind legs went over he drew himself up on to the path by his forelegs "like a dog." Things of this sort are very unpleasant, and our poor grey horse was near enough to being a vultures' feast.

At the end of so long and arduous a journey it was both for animals and men a grim and dogged climb. But at last we came out at the top by the large cypress tree, where my guide had slept on my visit to Hómalo many weeks before. We were now on the mountain-plain, and for a short time we sat and rested; then we went across the plain till we came to a house where we slept. It was exactly 12.45 a.m. of Thursday, July 1st, and the mule boys and I had started from



Sphakiá at 4.30 a.m. of the day before, Wednesday, June 30th, so we had been on the march for over twenty hours. When therefore we had watered the horses and staked them out, we were none of us sorry to go to bed. I slept on a bed made of *phascomilia* with its curious balmy scent.

At six o'clock that morning I was awakened by the arrival of the shepherd from Samaría, who came with the old nanny-goat and the little agrimia kids. He said that when he looked out that morning, just as day was breaking, there was the little truant bleating in his garden. He had then put a string on her neck, and partly leading, partly carrying her, he had brought her up with the old goat and the other wild kid.

So we left the mountain-plain of Hómalo, and went down to Canea. At Lákkos we baited and had some food. All the village seemed to be there, so numerous were the folk who gathered round to see an Englishman and the agrimia kids. When we left we passed the washing-spring by the big plane-tree where the women laughed at our procession, and wished us well as we went down the hill. We did not go through the Thériso gorge but turned off to the left and took the Alikianú road. The kids had been so persistently fed by hand that they were quite stupid about picking up anything for themselves, though they would take mulberry leaves from our fingers ; but they refreshed themselves chiefly upon the nanny-goat's milk. By the side of the track was



a little runnel not more than an inch or so in depth, from which the old goat drank—whereupon the kids followed her example. But instead of drinking at once they first put their muzzles into the water and scraped the bottom, with the action of a dog burying a bone, and then they drank. They both did this. It was a curious action, and I wondered whether it was a hereditary habit induced by the need for scraping back the snow in order to reach the grass or water. The day was hot, and they were very tired by the time we reached the lower plain, so I took one up on to the front of my saddle, while the shepherd carried the other in his arms. When we got out on to the dusty main road a landau and pair passed, coming from Alikianú, and I put the boy on the box beside the driver, and the shepherd, goat, and wild kids inside the carriage, and sent this curious cargo on to Canea. A day later all three animals left with me for England. The male agrimi has died from an accident, but the female is in the Zoo, and this year has had twins, who will no doubt follow their mother's practice of spending much of her time perched up in an angle halfway up the partition-wall of the enclosure and nibbling biscuits from children's hands.



NOTES AND OBSERVATIONS.





## THE CAVES OF CRETE.

BY DOROTHEA M. A. BATE.

ALTHOUGH the caves of Crete do not equal in extent and grandeur the famous caverns of some other countries, there nevertheless exist in the island some caves of considerable size, as for instance those of Sarko, Melidhoni and Katholiko, which contain fine stalagmites and stalactites, and these caves are all the more impressive from the absence of a guide armed with an acetylene or electric lamp, who glibly reels off the names given to the different chambers from some fancied resemblance to organ-pipes or the pillars of a cathedral. The feeble light of a few candles or of a smoking torch allows fuller play to the imagination, while the spirit of adventure is gratified by the occasional necessity of carrying a bag of leaves with which to lay a trail for the return journey through the numerous and tortuous passages.

The caves are not only interesting in themselves and for their contents, but may supply very valuable contributory evidence in showing local coast movements and in suggesting the amount of alteration which may take place in a landscape as the result of the process of weathering within comparatively recent times: that is to say, subsequently to the deposition and accumulation of Pleistocene mammalian remains on the floors of caves. The alteration of coastal elevation since the Pleistocene, and even within the historical age, is very general in the Mediterranean, and a study of these movements may lead to very interesting results, as is shown, for instance, by Mr. Robert Günther's recent investigations in Italy. Spratt gives many instances of such changes of level in Crete, drawing his evidence chiefly from the positions of archæological sites; from these he came to the conclusion that there had been a subsidence of the whole of the eastern half of the island and a simultaneous contrary movement in the west, of which he remarks: "The maximum upheaval of the coast seems to be between Selino and Lissos, where it is about twenty-six feet . . . ."\* I have already† endeavoured to show that further

\* *Travels and Researches in Crete*, London, 1865, II 22; II 241.

† *Geol. Mag.*, May, 1905, pp. 197-8.

proof of this late upheaval in the west is unmistakably furnished by the larger of the two fossiliferous caves found at Cape Kutri at the western base of the Grabusa Akrotíri, in which can be traced a distinct water-level mark now about twenty feet above the sea. A study of these caves and their deposits suggests the inference that this is not the only movement that has taken place in the west comparatively recently ; for since the deposition of the ossiferous breccias they have been submerged and largely destroyed, the present level being subsequently reached though without the former height being attained. Naturally, it is difficult to bring forward proof of the exact position of the caves at the time when the mammalian remains were being accumulated on their floors ; but it seems quite certain that it was higher than it is at present. This is indicated, for instance, by the condition of the cave discovered on the coast near Ravduka, in which the ossiferous stalagmitic floor has not only been broken up by the sea but is still partially submerged. Fewer cave-deposits were found in the east of the island, and although these were all largely disturbed and destroyed, actual proof of this being the work of the sea through alteration of the coast-level was not obtained, and this is very necessary before any definite conclusion can be formed. The effects of weathering on this bare limestone-rock are very severe, an example of this being apparently found in the cave-deposit situated at some little distance from the sea on the bare side of the hill to the west of the village of Melato. In this deposit all signs of the existence of a former cave had completely disappeared, with the exception of a portion of the stalagmitic flooring containing mammalian remains. (A deposit in a very similar condition was found in Cyprus, though in this case it was situated several miles from the coast.)

Occurring as they do in such numbers in the island, it is not surprising that caves are to be found of every imaginable size and shape : some single, others many-chambered, with tortuous passages and innumerable stalactites and stalagmites, which occasionally rise unbroken from the floor to a lofty roof which is but dimly discerned by the faint light of a lantern.

A rough division into two kinds of caves seems possible, for though some may be intermediate, the greater number would fall naturally into one or other division. First there are those, including the majority found in the low country, which have floors more or less horizontal and which might in many cases have formed part of the channel of an underground watercourse ; secondly there are others which seem to have originated as great clefts or cracks in the hill-side, into which water formerly flowed. Many of these in their early

stages, if in a suitable situation, performed the functions of the well-known swallow-holes. Such a hole is locally known as a katavothron or a khonos. Good examples of the latter group are the famous Kamares Cave of Mount Ida and the Diktaean Cave overlooking the Lasithi upland plain. It may be claimed for the former group that it is in them that, so far, have been found all the remains which provide such an interesting record of the earlier mammalian inhabitants of the island. This, however, may be partly due to the greater difficulty of investigating the larger caverns where a considerable thickness of stalagmitic deposit might entirely conceal any traces of an ossiferous breccia.

Fossil remains frequently roused great interest and even veneration and worship in early days, on account of a prevalent belief that they were the relics of saints; and possibly it is originally due to this idea that a chapel or small sanctuary is occasionally found in a cave which contains an ossiferous deposit, as in the cave of St. George mentioned below. Perhaps the earliest record of a bone-cave in Crete is that of the traveller Pococke,\* who in the first half of the eighteenth century gave a description of a grotto at the ruined village of St. George, in the Khaniá Akrotíri. This sheltered a church which was said to contain petrified bones of unusual size, though Pococke adds that those which he himself observed in the softer parts of the rock at the entrance were not petrified. At the time of my visit there were still to be seen traces of a little chapel, built into the mouth of the cave, though evidently the only use to which this retreat is now put is as a winter shelter for shepherds and their flocks. The very existence of this deserted village and shrine is almost forgotten in the neighbouring hamlets. The cave contained but a single chamber, in which a few remains were observed of small ungulates—probably deer and goat—but these did not appear to be in sufficient quantity to repay any extensive work of excavation. A special interest attaches to this cave on account of its being the only one met with in Crete that contained both fossil mammalian remains and also a shrine, although in other islands this is not uncommon. In Cyprus, for instance, in one bone-cave, I found a lamp which was still kept burning; other caves were believed to contain the bones of saints, and in their honour a yearly pilgrimage was formerly made within the memory of natives still living in the island. That only a solitary instance of this was found in Crete may be explained by the frequent destruction, partial or total, of the caves, on the floor of which these remains had accumulated.

\* *A Description of the East*, 2 vols., London, 1745.



During his travels in Crete, Spratt discovered two bone-caves,\* one close to the Monastery of Goniá, west of Khaniá, and the other "between Khaniá and Súdha," where he obtained specimens identified by Dr. Falconer as those of "a goat, a roebuck or stag, and of a small *Myoxus*." The former cave is situated in an outstanding limestone cliff overlooking the monastic buildings. Through this cliff it forms a tunnel having an entrance at either side. The fossil remains occurred in some very hard breccia within and on either side of the opening on the southern side and also in the hardened rock-face which falls almost perpendicularly from the cave mouth to an earth-covered ledge about fifteen feet below, on which lay several blocks of stone containing traces of similar remains. Doubtless the cave and its ossiferous deposit were formerly much larger, the approximate depth of the latter being evidently indicated by the remaining traces, which extend over as much as sixteen or seventeen feet.†

The second of Spratt's caves lies on the right-hand side and close to the pathway which leads from Khaniá to Súdha and which follows the edge of the weathered limestone of the Akrotíri, where it is met by the fertile plain called after the capital. A few scattered ungulate remains were observed in two clefts of the low rocks as well as between them, these indications extending altogether for a distance of about forty yards, suggesting the former existence of a cavern and deposit of some considerable size.

Signor Simonelli visited Crete in 1893, when he made the first palæontological excavations of any importance in the island in some caves situated a little to the west of Rethymno in cliffs facing the sea. As a result of his researches at this spot, he obtained the remains of a large elephant and of a small deer not previously known to science, which he has named *Anoglochia cretensis*.‡

A little more than ten years later the present writer devoted several months to investigating the fossil mammalian fauna of the island, and during this time the two cave-deposits found by Spratt and the one recorded in the Akrotíri were visited, while about a dozen others were discovered. One feature which greatly increased the difficulties of finding these was the fact that, as is already noted above, in many instances the cave in which the ossiferous deposit had been formed had almost or quite disappeared, this being so in about six cases.

\* Op. cit., II. 194-5.

† *Geol. Mag.* (N.S.) Dec. V., May 1905, p. 196, and pl. ix.

‡ Simonelli V., *R. Accad. delle Scienze dell' Instituto di Bologna*. Sessione 26 Maggio, 1907. Bologna, 1908.



In some not only had the whole of the cave-walls been lost, but the destruction of the deposit itself had been nearly accomplished, only a few indications being left to tell of its former existence. It is probable that others, again, may have been completely destroyed in another way; for as archæological sites have so often suffered from being used as quarries by successive generations, so I found that ossiferous cave-deposits were liable to destruction in a similar fashion. At the base of the Akrotíri, for example, many caves which occur in low broken ground had had their roofs, and perhaps sides, removed as an easy method of cutting limestone for burning, and in one instance at least I was told of petrified bones having been observed by stone-cutters. It may be worth noting that all the deposits known occur in quite low country, the majority being close to the sea—some even awash—while none were very far removed from it. It is, however, quite possible that others may exist in some of the numerous caves in the hills, although a considerable number were visited which showed no traces of ossiferous breccias.

The coast-line of the island is so broken and rugged, and of such extent that it was impossible for even the northern half to be more than very partially examined, while the southern half still awaits investigation, being practically unexplored from the palæontological point of view. The localities of all the deposits known may be briefly given: one was found near the village of Sphinári, the most westerly point visited; two on the northern border of the Kutri or Phalasarna Plain at the base of the Grabusa Akrotíri; one on either side of the base of the promontory separating the bays of Kísamos and Khaniá and close to the village of Ravduka and Goniá monastery respectively; while four occur within the limits of the Khaniá Akrotíri—that most important of the three great headlands of the west. Continuing eastwards, the bone-caves of Rethymno are first met with, then the deposit near Melato in the Eparkhia of Mirabella. In Sitía, or Eteo Crete as it was known to the ancients, not far from the most easterly point of Eastern Crete, a number of remains probably originally contained in four, or possibly five, caves were found in very rugged cliffs bordering the south side of the Bay of Kharoumes.

The deposit at Sphinári, the two situated in the rocks to the east and west respectively of the mouth of the Katholiko Gorge, that at Melato and at least two in the cliffs of Kharoumes Bay were all no longer protected by either cave-walls or roof, and were themselves largely destroyed. Very few traces were left of the Sphinári deposit, and of the one to the west of the Katholiko Gorge, only one or two fragmentary bones

could be seen in the sea-washed rocks. With the exception of the one at Melato, all these deposits were situated only a short distance from the sea, the action of which during storms may have accelerated the work of destruction; none were of sufficient extent to be worth working except that to the east of Katholiko Gorge and close to Cape Maleka, or Malaxa. Here we found the remains of a pigmy elephant, a small collection of which was with some difficulty obtained. Although so little was left, the few remains were scattered over a considerable area, which showed that they must have originally formed part of an extensive deposit.

The two caves in the cliffs of Cape Kutri were only a short distance apart and facing the sea, which was the only means of reaching one of them; this was the smaller of the two and contained only a few traces of an ossiferous deposit. In the larger, although the flooring had been greatly damaged and demolished by the sea, indications were found of a mammalian deposit fifteen feet in depth, now chiefly represented by two layers separated by stalagmite and situated at the inner end of the cave. These contained remains of a goat or antelope and a deer about the size of our roe-deer. Similar remains were procured from a small cave known as Hagios Basilis and situated in the cliffs to the south-west of Ravduka on the eastern side of the Bay of Kisamos. Here also the deposit has been almost entirely destroyed by the sea, which still covers a portion of it.

In the far east of the island, at the southern side of Kharoumes Bay in Sitia, the coast is bold and rugged, with cliffs rising abruptly to a considerable height. This proved a field of great interest, for here indications of a number of ossiferous deposits were found in a very small area. Near where the border of this bay ends—in a point round which it is impossible to walk dryshod—is a lofty but narrow cave with a floor much broken up and heaped with boulders; in the roof at the inner end were a few bones and part of a deer's horn. Not very far from this, and at the base of the cliffs for a distance of about a hundred and fifty yards, were found the remains of various ossiferous breccias: though in what exact number it was impossible to make out owing to their fragmentary condition; but it seems probable that there were originally at least two caves besides the one which still exists. What added further to the interest of this locality was the occurrence of remains of no fewer than four species of mammals, besides traces of those of some small rodent. At a short distance on either side of the remaining cave was a fragmentary deposit, one containing only bones and teeth of a dwarf hippopotamus, the other those

of the small ruminants so frequently found, and with them some land shells. The cave itself is not large and has a low entrance, while inside it shows evidence of some devastating agency—the sea or possibly a torrential fresh water inundation—having been at work, the thick stalagmitic flooring having been broken up into huge blocks, but little remaining of the former ossiferous deposit, though from its traces it appeared to have formerly reached to within a foot or two of the roof.

Not many feet above the sea in the rocks below, and a little to the south-east of this cave were found some remains of a large elephant (*E. antiquus*).

The rocks in which these occurred, together with some ruminant bones, were very hard and much weathered, so that considerable difficulty was experienced in removing the few remaining specimens, which included a well-preserved mandibular ramus and a few limb bones in a good state of preservation.

It is often difficult to account for the deposition in caves of remains of mammals which do not naturally frequent them and which have not been brought there as the prey of cave-haunting carnivora. Neither of the above explanations apply to the animals found in the Cretan cave-deposits, with the exception of the rodents and the shrew. It seems necessary to suppose that their remains were accumulated through the agency of water, either in the form of underground streams or by floods of greater or lesser magnitude. The effects of such floods may be realized from the graphic description of one near Zakro given by Mr. Hogarth, in his *Accidents of an Antiquary's Life*.<sup>\*</sup> The demolished state of so many of the deposits makes it sometimes difficult to ascertain their original condition, though the occurrence of the bones in several layers, separated by stalagmite in one of the Kutri cave-deposits points to a more or less tranquil and intermittent mode of accumulation, such as by a normal stream subject to fluctuations in volume at different seasons. I have lately come to the conclusion that, in many cases, caves on the sea-coast are nowadays entered from what was originally their terminal point. If the face of a cliff be broken, it will perhaps disclose a small chamber, the proximal walls of which have been closed up by stalagmite, the uninterrupted growth of which was no longer interfered with after the cessation of the introduction of any large quantity of surface water, which would once have gained admission by means of a katavothron, or some fissure in the limestone. This would explain the presence of bones in the roof of a present-day cave, as at Kharoumes Bay; for water might pour into a

<sup>\*</sup> London (Macmillan) 1910, p. 83.



terminal chamber until this became completely choked with the earth and débris carried into it. It is not only the question *how* these deposits were formed, but also the *when* that is impossible to answer definitely, for no doubt the rate at which a stalagmitic flooring grows varies considerably at different times and places; usually a very slow process, it can be comparatively rapid. Pashley, in his account of the Cave of Melidhoni, gives an instance of this when he describes earthen pots, left by the refugees only twelve years earlier, as already firmly fixed to the floor by the secretion of lime from the water.

The fossil remains of at least seven mammals have been obtained from the Pleistocene cave-deposits of Crete; they include those of a large elephant (*Elephas antiquus*)\*; a pigmy race (*E. creticus*)\* hardly more than three feet in height; a dwarf hippopotamus (probably *H. penilandi*) not very much larger; a deer about the size of a roe-deer (*Anoglochis cretensis*);† a goat (probably *Capra aegagrus*); a shrew (*Crocidura*);‡ a large murine rodent (*Mus catreus*);§ a spiny mouse (*Acomys*);§ and rat (*Epimys rattus*).§ The goat and deer were most plentifully represented, and one or both were found associated with the other species, with the exception of the pigmy elephant and hippopotamus; they occurred, therefore, in all the deposits except the one containing remains of *E. creticus*, and the two from which the hippopotamus remains were obtained.

The extinction of the deer, which doubtless provided the sport beloved of Artemis and her votaries is, geologically speaking, of quite recent date. This is shown by the discovery of some of its horns in the shrine of the "Snake Goddess" in the Palace of Knossos, dating back to about 2,000 B.C. Further, Sir Arthur (then Mr.) Evans, writing|| of some of his excavations in the Diktaean Cave says: "We found a continuous layer, containing what appeared to be a sacrificial deposit of bones, horns and ceramic objects, imbedded in ashes and charcoal. The bones were of deer, oxen and goats: the horn of an agrimi, or wild goat, found in this stratum being about a foot and a half in length." With regard to this last it may be mentioned that modern horns of much greater size have been obtained, for Pashley gives the measurements of a pair taken along the outside curve as 2 ft. 7½ in. Seeing that their remains occur in these and other shrines, it is not suprising to find that the deer, and more especially the goat, are among the

\* *Proc. Zool. Soc.* 1907, 238-250, pls. XII, XIII.

† Simonelli, op. cit.

‡ *Geol. Mag.* (N.S.) Dec. V, Vol. II, 1905, p. 202.

§ *Geol. Mag.* Dec. V, Vol. IX, No. 579, pp. 4-6, 1912.

|| *Journal of Hellenic Studies*, XVII 355.



animals most frequently represented in Minoan art, seals and gems particularly providing good examples of their realistic portrayal.

The occurrence in deposits of approximately the same age of two races of elephants differing so greatly in size is of great interest, and may be another indication that a long period of time is not essential for the differentiation of species by the acquirement of altered characteristics to suit some great change of environment. A sudden change in surroundings or climate offers, as it were, a choice between an almost equally rapid alteration to suit the new conditions or else extinction. It seems curious, however, to find that not only in one, but in several localities the elephant, whose great size and many-ridged teeth are specialised characteristics, has been able to respond to this demand at a late period in the existence of the race, which might be considered to have reached, if not already passed, the height of its development, and therefore to be near its ultimate extinction. The remains of the dwarf hippopotamus were found not only in the two cave-deposits of Melato and Kharoumes Bay, but also in large quantities in a fresh water deposit in the upland basin of Katharo in the Lasithi Mountains. It was not surprising to find remains of these two dwarf species, for parallel cases existed in other of the Mediterranean islands—Malta, Sicily, and Cyprus.

Owing to the vicinity of the capital, the caves of the Akrotíri have perhaps been visited and described by travellers more often than any others in the island, with the exception of the famous ones of Nidha and Lasithi, which have been so closely connected with the wonderful story of Crete during the fascinating period of the bronze age, the legends of which have so lately been changed to history. From the brief descriptions given above, it will be remembered that this peninsula has yielded four Pleistocene ossiferous cave-deposits. These are not, however, the only spots of interest in this locality, for immediately above the ruined monastery of Katholiko, and near the foot of the sloping flight of rude steps by which it is approached, is the entrance to a stalagmitic cavern, at a considerable distance inside of which is a sanctuary or altar. In a crevice close to its mouth I noticed a pile of human bones—though whether these were the relics of the perpetration of a barbaric act like those which took place at Melidhoni and Zarko, or whether this grotto had been used as a mortuary for one or more of the monasteries I was unable to find out. It contains many stalactites throughout its length, which is variously given by Sonnini as about a mile, by Pococke as “near a quarter of a mile,” and by Pashley (who measured it and is therefore

probably correct) as nearly 500 ft. Pococke remarks\* that after leaving this place he was told that there is another grotto lower, which extends much further than this. My inquiries elicited no information about this last; but in such a mountainous and pathless tract of country, the conviction is soon forced upon the traveller that a careful search extending over many weeks might yet leave much to be discovered.

On the side of the hill facing Katholiko Monastery I noticed—though I did not visit them—a number of what appeared to be rock-shelters, with some building at their entrances and which my guide informed me had formerly been occupied by monks. Pashley, apparently writing of these, says:† “On the opposite side of the ravine are ruins of several solitary huts, supposed to have been used as hermitages,” and he further mentions a chapel hewn out of the cliff somewhere in this vicinity.

There exists yet another cave between the monasteries of Katholiko and Hágghios Ioánnis, closer to and above the long flight of steps which forms the approach to the former. Here, tended by a priest, is still—or was until a few years ago—a small chapel and garden at the entrance into the single large chamber, with a lofty roof from which hang many stalactites: one large one with its constant drippings keeps filled with deliciously cold water the hollowed head of a stalagmite which rises eight to ten feet above the floor; another and lower natural tank of fresh water is also supplied. This cavern is generally described as that of the Bear (*Arkhoudhes*), but it is also possible that it might have had some connection with the badger, which is plentiful in the island, and is known as *Arkalos*. Some legend seems always to have been attached to this cave and its name, though many different versions are given. Pococke speaks of “a figure which resembles a sitting bear,” which must refer to the isolated stalagmite already described above. Pashley repeats this, at the same time expressing surprise at the apparent absence of any connection with the story of the two Cretan nymphs, Helice and Cynosura, who, after nursing the infant Zeus, were transformed into bears. The story given to me was to the effect that at one time the cave was inhabited by a hermit who dressed in the skins of wild beasts, and to this custom owed his death. Being mistaken for a wild animal by a hunter, he was shot or otherwise mortally wounded, and the unfortunate hermit crawled back into the recesses of his lonely cave to die.

The presence of these Christian shrines, or chapels, in many of the caves of the Akrotíri may perhaps be partly accounted

\* Op. cit., II 264.

† Op. cit., II 27.

for by the former existence of four monasteries—a very large number for so limited an area. I did not meet with any other present-day cave-shrines in the west. When working in one of the caves at Cape Kutri I was shown a small chamber, or natural recess, at the back of the cave in which, I was told, a small statue had been found by a man who worked for me, who with one or two companions had ineffectually tried to send it out of the island. It was seized and the finders were sent to prison for several weeks : which experience caused me some difficulty in persuading one of the participants in this episode to show me the cave and further to work in it. I could see no signs of this recess having been used as a shrine, and it seems possible that the statue had originally been found at the adjacent Greek site of Phalasarna, and hidden in the cave by men who, for some reason or other, had failed to return for it.

Spratt gives a description of a rock chapel—that of St. Niketas—near Cape Sudsuro on the south coast, which had been elaborately ornamented with a painted roof, and in this case the size of the natural cave seems to have once been added to by a building attached to its entrance, but since demolished. Pashley also\* quoting from Randolph, writes of a cave ten miles to the east of Hierapetra “where they say St. Paul preached : it is a large chapel, having twelve pillars all cut out of the rock, which was done by the Christians in the night-time.” This last sentence gives a clue to a reason for the employment of caves as churches, as distinct from shrines or places sacred to some local saint : for too often in later days the rites of the Christian religion could not with safety be practised openly, but only in secret, and perhaps under friendly cover of the night.

Cretan caves were not only used for religious purposes in historic times, but they also frequently played an important part in many of the wars and revolutions of the island, not seldom affording a refuge to large companies of people—often the whole population of a hamlet—during the repeated struggles between Christians and Mahommedans. Those chosen for this purpose were generally of large size, contained a supply of water, and had an entrance capable of being approached from the outside by only a single man at a time, and being therefore practically impregnable, they appeared to be the natural refuge for the Christian inhabitants of a village who were fleeing for their lives. Certain suitable caves of the island seem to have been used for this purpose from very earliest times, so that Pashley writes : “Cresphygeton, the Cretan’s refuge, became the general name of grottos, thus supposed

\* *Op. cit.*, II 77.



to be places of security from danger." Though doubtless a safe harbourage was thus often gained, yet this was by no means always the case, as the many harrowing tales told to the traveller testify. One of the best known of these is connected with the cavern of Melidhoni not far from the village of that name in the Eparkhia of Mylopotamo. This had already proved a safe refuge in 1822, and was not very long after once more put to the same use by about three hundred villagers, who brought with them large quantities of provisions and other portable belongings. The Mahommedan leader, before whom they had fled, attempted to dislodge the Christians by means both of fair words and promises and also by force, as a result of which he lost a number of men who were shot from the cave mouth. After this the invaders proceeded to block the entrance, on which the fugitives depended solely for air and light. One must suppose that the ammunition of the beleaguered party had given out, for they seem only to have been able to remove at night the stones thrown in by their opponents during the day time. This continued for several days, and the latter, evidently preferring to avoid the risks of a concerted rush on an unseen foe, heaped wood and other inflammable material at the entrance and set fire to it, so that all the chambers and galleries were filled with volumes of smoke which soon suffocated the miserable refugees. This treatment would probably had been accorded without delay had not their number included many women and children who would have been sold as slaves. Pashley visited this cave in 1834, and gives a graphic description not only of the many chambers and their wonderful stalactites, but also of the profusion of human remains still lying on the surface of the floor.

In the same year that the above tragedy took place, several hundreds of villagers retreated to a large cavern in the Melato valley, and of their numbers those who were not shot or starved to death at length surrendered to a party of Moslems from Spina-longa, by whom they were made slaves. Greater success attended those who fled to the recesses of the grotto of Zarko, which also boasts of an easily defended approach: though on one occasion at least, in 1822, this success was dearly paid for by those who had remained behind in the village; to them was meted out the fate the refugees had escaped.

It may not be out of place to mention here the weird underground quarry known as the labyrinth, and thought to be, indeed, the famous Labyrinth of legend until Sir Arthur Evans revealed the secrets and wonders of Knossos and showed that the Palace of Knossos is the Labyrinth, by which name



is meant the Place of the Double Axes, not the tortuous, winding way one has learnt to associate with the word.\* At a little more than an hour distant from the village of Haghia Deka there is an opening high up on the side of a hill, which leads inward in a horizontal direction for a considerable distance following the natural stratification of the limestone. There are numerous galleries of no great height but many windings. It has unmistakably been excavated by man, and as this excavation would have entailed unnecessary labour were the cutting of building stone its only aim, it seems probable that it was intended to serve a double purpose, that of a quarry and of a refuge, and as both of these it undoubtedly has been employed. Numerous buildings of the neighbourhood have been wrought from its stone, whilst to many Christian families it provided a safe harbourage during the troublous years of 1822 and after, as it had also possibly done long years before that date.

It has been said that the cave is probably the first form of temple, so that it was only to be expected that the exploration of the caverns of Crete should greatly reward the spade of the archæologist; and although the number excavated for this purpose has not been very large, many treasures have been unearthed and the acquisition of much valuable evidence has resulted. The most important are the two famous caves of Ida and Dikte, both of which have been claimed as the birth-place of Zeus, though in the light of recent discovery it seems that it was as the shrine of an earlier deity that they first acquired their sanctity. We read† that "Zeus was god of the Achæans, and has no place in earlier Minoan religion. Therefore we must conclude that Achæan invaders foisted him on Crete, and to establish his supremacy, had him born by the Earth goddess in her own cave sanctuary." In this connexion it is interesting to read that "In Mexico . . . the Quiché legend, in which the human race descended from a cave-dwelling woman, is only a type of Mother Earth as the Great Mother. The mount with a Cave was a natural figure of the Earth Mother . . . types in sign language."‡

Of these two well-known grottos the Diktaean is the earlier shrine, not having been superseded by the Idaean until some few hundred years before the commencement of the Christian era. From the small village of Psychro, a steep path up the mountain-side leads to its entrance, whence a splendid view is obtained of the enclosed mountain-plain of Lasithi, spread

\* See Hawes, *Crete: the Forerunner of Greece*, 70-71.

† C. H. and H. B. Hawes, *op. cit.*, 109.

‡ Dr. A. Churchward, *Signs and Symbols of Primordial Man*, pp. 125-6, London, 1910.

out like a map below. With its plots of dark and light, fallow and cultivated land, one irresistibly likens it to some vast and irregular draught-board. This cave is like those already referred to which have a lofty opening and descend almost immediately at rather an acute angle to a considerable depth where, in this case, a quantity of water and a number of stalactites are to be seen, and where the temperature, even in summer, is very low. Important remains have been found in both chambers: the lower one, which was explored by Mr. Hogarth in 1900, was found to have been the most recently used as a shrine, and the objects obtained, which included hundreds made of bronze, dated from about 900 B.C. The upper chamber was first explored by Professor Halbherr and Dr. Hazzidakis, and later, in 1895, by Sir Arthur Evans, who then discovered the famous Libation Table.\*

The Idaean Cave, with its stone altar outside the entrance, is situated at a greater height, about 4,000 ft., on the western border of, and a little above, the small upland plain of Nidha. This is a colder, as well as less accessible, situation than that of Dikte, for even in the beginning of July it has been known to contain a few patches of snow, though it was at one time believed that fire burst forth spontaneously once every year from this grotto. This cave was the first in Crete to be excavated by Professor Halbherr, who obtained a great number of valuable objects, chiefly of bronze.

On leaving this ancient shrine a small chapel is passed, and continuing towards the southern end of the plain a westward course may then be taken along the southern slope of Ida when, after about three hours' rough walking, the Kamares Cave is reached. From this lofty and exposed spot on the mountain-side a fine panoramic view is gained of a large stretch of the south of the island. The formation of the Kamares is somewhat similar to that of the Diktaean Cave, with a high, vaulted entrance and an abrupt descent to damp and chilly depths, where the floor was found to be covered with sherds of the ancient pottery to which this site has given its name, and which has been described by Professor Myres and by L. Mariani.

In 1900 Mr. Hogarth carried out some most interesting researches among the limestone caves, most of them of small size, of the Zakro Valley in the extreme east of the island. Many of these proved to have been used for burial purposes, one yielding remains of at least five burials, the bodies having been laid on earth in cists built of small stones. Vases were found in association with the human remains in this as well as in another smaller grotto, barely more than a recess in the

\* See *Journal of Hellenic Studies*, XVII 350.

cliff in the upper part of the valley, where a large number of objects in clay, stone, bronze, glass, and iron were obtained. Of the human skulls procured from this locality, Professor Boyd Dawkins wrote\* that they "obviously belong to the long-headed section of the ancient inhabitants of Crete, and they all bear the marks of civilization in the absence of strong muscular ridges and impressions, and in the small size of the teeth. . . . All these characters point unmistakably to the fact that the possessors of the skulls had left the feral condition of humanity behind and led the artificial life of highly-civilised peoples."

It will be remembered in what a fragmentary condition most of the ossiferous breccias and the caves containing them are now found, and no doubt the same agencies have destroyed any remains of human burials, which might otherwise have been found in the upper layers of such caves. As Mr. Hogarth said in writing of his excavations at Zakro: "It is plain, then, that cave burial was practised at the time of the early Kato Zakro settlement, and it is probable that the dead continued to be disposed of in superficial cists among the rocks of the numerous gorges through the Mycenaean age. Such a practice, which in nine cases out of ten would expose the body and its grave furniture to the terrific denuding influences which act on Cretan soil, may be held to explain the extreme difficulty experienced hitherto in finding early cemeteries in the island. Probably for the most part they have absolutely ceased to exist."†

Besides the above, remains have been obtained from rock-shelters, such as those of Petsofa, while rock-tombs occur in various localities: but an account of these can hardly be included in this brief sketch of the caves of Crete.

\* *Ann. Brit. School at Athens*, No. VII, 1900-1, pp. 150-55.

† *ib.*, pp. 44-5.



## THE MAMMALS OF CRETE.

BY DOROTHEA M. A. BATE.

THE remains of extinct races of elephants, a pigmy hippopotamus and other species which have been discovered in the Pleistocene deposits serve to show what great changes have taken place in the fauna of Crete within recent geological times. Great alterations in climate and vegetation of comparatively late date may help to account for the small number of species, only seventeen, known to occur in the island at the present day. Nine of these have been described by various authorities as peculiar to Crete. As a whole the Cretan mammals of to-day may be said to be European in character, the spiny-mouse being the principal exception to this.

In addition to some scattered descriptions and papers on the subject, two Lists of the Mammals of Crete have been published: one in 1869, by M. V. Raulin,\* and the other by the present writer in 1906,† while the various species will be found included in Mr. Gerrit S. Miller's invaluable work on the Mammals of Western Europe.‡ Reference should also be made to Dr. Lorenz-Liburnau's§ writings on the wild goat. It is very possible that this List may be augmented by the future discovery of the occurrence of other species of bats. Only four have been recorded, a very small number, particularly when it is mentioned that in Cyprus out of sixteen species no less than eight belong to this Order.

The following list is based on the one published in the *Proceedings of the Zoological Society* in 1906. Since then one addition has been made by Mr. Trevor-Battye, who procured specimens of a shrew. The nomenclature used in Mr. Miller's *Mammals of Western Europe* has been followed.

INSECTIVORA. The Cretan shrew (*Crocidura canea*) is a small, dark race of *C. russula*, chiefly distinguished by the character of its teeth.

The hedgehog (*Erinaceus nesiotus*) belongs to the group of European species, and is a small form peculiar to the island.

\* *Description Physique de l'Ile de Crète*, 2 vols., Paris, 1869.

† *Proc. Zool. Soc.*, 1905, II 315-323.

‡ *Catalogue of the Mammals of Western Europe*, London, 1912.

§ *Die Wildziegen der Griechischen Inseln*, etc., 1889.



It is most closely allied to *E. roumanicus*, from which it differs in its smaller size and in some dental characteristics. It is commonly found in the low country, but otherwise its local distribution does not appear to have been ascertained.

**CHIROPTERA.** The leaf-nosed bats are represented by the greater and lesser horseshoe bats (*Rhinolophus ferrum-equinum* and *R. hipposideros*), both very widely-distributed species. Other bats known from Crete are the short-eared *Myotis oxygnathus* of the Mediterranean region, and *Miniopterus schreibersii* of Southern Europe, Switzerland, and Hungary. All may be found resting during the daytime in caves, generally singly, with the exception of *M. oxygnathus*, which congregates in great numbers. This species has been known to haunt the galleries of the Labyrinth of Gortyna for centuries, and here they can be seen hanging in clusters from the roof. They become very noisy and restless at the approach of a light.

**CARNIVORA.** Four species belonging to this Order occur in the island though, curiously, no traces of any carnivore were found in the Pleistocene cave-deposits. The badger (*Meles arcalus*) is pale in colour and, like most of the races peculiar to Crete, is small in size. It is commonly found throughout the island and is killed in some numbers for the sake of its skin, which is locally employed for a number of purposes.

The Cretan marten (*Martes bunites*) is another small island form, rather light in colour and the white throat-patch small, with an apparent tendency to become still further reduced. This species is plentiful, and during the colder months is killed in some numbers and exported for the sake of its fur.

A large weasel (*Mustela galinthias*) also occurs and is believed to be peculiar to Crete. Its skull is not known, and only two skins are in the National collection; these show a very distinct line of demarcation between the colours of the upper and under-surfaces, and in this respect differ from examples of *M. africana* with which they otherwise agree. *M. galinthias* is by no means rare in the island, and can often be observed, owing to its habit of being abroad during the daytime.

A wild cat (*Felis agrius*) is not uncommon in the island, and seems to resemble most closely specimens from Sardinia.

**RODENTIA.** This Order is represented in Crete by six species, four of which are recognised as forms restricted to this island habitat. A rabbit is found in some numbers on the island of Dhia, off the northern coast near Candia. It belongs to the small Mediterranean race *Oryctolagus cuniculus huxleyi*.

Hares are found all over the island, and belong to a small, light-coloured species common to Crete and Cephalonia and

known as *Lepus creticus*. Spratt suggested that specimens seen on Mount Ida, which attains a height of over 8,000 ft., were smaller than those of the low country. No specimens seem to have been obtained to determine this question.

A field-mouse (*Apodemus sylvaticus creticus*) occurs commonly in the island, and has been obtained from a height of 4,000 ft. This Cretan race is pale in colour and small in size, whereas other Mediterranean races show a decided tendency towards an increase of bulk as compared with the typical form from Central Europe.

The rat found in the towns of Crete belongs to the race *Epimys rattus alexandrinus*, which commonly occurs in the Mediterranean region. It is not now found outside the towns, although its remains have been obtained from Pleistocene cave-deposits. It has been suggested\* that its range may have become restricted owing to a comparatively late introduction of the weasel.

A house-mouse occurs in the towns and probably belongs to the Mediterranean form *Mus musculus azoricus*.

One of the most interesting of the small mammals of Crete is the spiny-mouse (*Acomys minoüs*), which is smaller and darker than *A. dimidiatus* of Asia Minor. Its discovery in Crete was unexpected, for the genus had previously been known only from Africa, south-western Asia, and Cyprus. That it is a long-established species in the island is proved by the occurrence of its fossilised remains.

UNGULATA. A wild goat (*Capra aegagrus*) is still found in some of the most mountainous regions of the island, and is shot by the natives in winter when driven to lower ground by heavy falls of snow. The greatest length of horn recorded by Dr. Lorenz-Liburnau is 81 cm., and by Pashley about a centimetre less. The latter gives the weights of two animals killed about 1819 as 28 and 35 okes† respectively.

\* *Geol. Mag.*, Dec. V., Vol. IX., No. 571, p. 6, Jan. 1912.

† 1 oke = 2½ lbs.

## BIRDS IN CRETE.

THIS is merely a list of birds seen or obtained between March and the end of June. It seems best to leave out the sea-birds as I did not see evidence of any nesting. Shearwaters and gulls, unless they nest, are no better worth recording than is, for instance, the pelican that appeared on the sea one day outside Canea harbour.

The Cretans, unlike the people of France or Italy, do not, I am glad to say, slaughter their small birds.

Two of the most familiar Mediterranean birds, the bee-eater and the hoopoe, were not seen; and yet, though perhaps one chiefly associates the latter with damp, cork woods, there is plenty of suitable ground for it in Crete. A woodpecker was heard but not seen, and the same applies to the nuthatch.

Woodcock and Common snipe are shot on migration in Crete, and Mr. G. W. Taylor saw a jack snipe there in 1854, and also records the Great white heron.\*

Miss Bate heard the cuckoo on April 16th near Kutri.†

In a first-rate paper‡ Commander H. Lynes records various birds that I did not see or did not recognize. These were, for the greater number, on passage. Among those he could add to my list are the ortolan, serin, Cretzschmar's bunting, tree-pipit, meadow-pipit, black-headed wagtail, grey wagtail, pied flycatcher, chiffchaff, wood-warbler, sedge-warbler, black-cap, whitethroat, lesser whitethroat, song-thrush, rock-thrush, redstart, black redstart, redbreast, sand-martin, hoopoe, wryneck, sparrow-hawk and water-rail.

As ornithological nomenclature is still in a state of confusion—is in fact at this moment, and we may hope finally, being revised—it seems best for the present to keep to the old names. Where possible, then, I have followed Howard Saunders's *Manual*.

RAVEN. *Corvus corax* (L.).

Ravens were often seen on the wing, and a pair frequented the sandhills by the estuary of the Plátanos stream in April and May. It is possible that they were *C. affinis*, yet they appeared to me to be small in size, almost as small indeed

\* *Ibis*, II 1872, p. 229.

† *Epist.*

‡ *Ibis*, VI 1912, p. 121.



as *C. tingitanus*. Irby says that in 1886, at Crete, Colonel Verner took fresh eggs of Ravens on 26th of March.\*

GREY CROW. *Corvus cornix* (form ?).

A pair were seen about Nidha on June 8th.

BLACK-HEADED JAY. *Garrulus krynicki* (Kalenitz).

Though this jay was only observed on two occasions—on June 29th, in the gorge of Askíphu, and on June 30th, near the ravine of Arádhena, when a specimen was obtained—it is evidently fairly common in certain parts of the island, as it was well known to the natives. It would seem to be chiefly an insect feeder. The late Colonel H. M. Drummond-Hay recorded the Common jay but did not meet with the above, nor I with *G. glandarius*.

CHOUGH. *Pyrrhocorax graculus* (L.).

Several choughs were seen about Mount Ida, and small parties of this species crossed the plain of Nidha in the morning and returned in the evening of June 7th and 8th. Their scarlet bills, and also their red legs—during sudden twistings—showed very brightly in the morning sun. *P. alpinus* was not seen by myself, but Miss Bate found them frequenting Kamáres cave, three hours distant from Nidha.

GOLDEN ORIOLE. *Oriolus galbula* L.

A male seen, and heard singing.

GREENFINCH. *Ligurinus aurantiiventris* Cab.

Seen once only—a family party of seven, near Goniá, on May 24th. From the bright yellow of the old male I thought there could be no doubt that they belonged to this form.

GOLDFINCH. *Carduelis* (form ?)

Not infrequently seen. Evidently nesting. Probably a local race.

LINNET. *Linota cannabina* (form ?).

Linnets (presumably belonging to the form *mediterranea*) were seen on several occasions—the last on Nidha on June 8th.

CHAFFINCH. *Fringilla cœlebs* L.

Constantly met with in the mountains and on high ground. They were feeding their young on Nidha on June 8th.

ITALIAN SPARROW. *Passer italicæ* (Vieill.).

Seen frequently.

CORN BUNTING. *Emberiza miliaria* L.

Fairly common in suitable districts. A male bird often seen by the bridge of the Plátanos River was still singing there on May 9th.

\* *Ornithology of the Straits of Gibraltar*, 2nd ed. 1895, p. 84.



CRESTED LARK. *Alauda cristata* (form ?).

Crested larks (*meridionalis*?) were extremely common on the lower grounds of the northern coast from the spring onwards to end of June. When disturbed on the bare waste ground they would always drop into the nearest available corn shelter.

WOODLARK. *Alauda arborea* L.

Abundant locally on rather high ground, especially in the eastern end of the island and in the high lowland of Rukaka and Candia. In the Canea country it was rare.

TAWNY PIPIT. *Anthus campestris* (L.).

This elegant species often seen on high, rocky ground. There were many, both old and young, on the plain of Nidha on June 8th and 9th.

WHITE WAGTAIL. *Motacilla alba* L.

Seen several times on river deltas, but not common. A pair that haunted the river Plátanos were there in full summer plumage on May 9th.

BLUE-HEADED WAGTAIL. *Motacilla flava* L.

This species (or a local form?) observed in big bunches during April, but not noticed later, possibly because I visited suitable ground but little after that.

GREAT TIT. *Parus major* (form ?).

Resident. Of a family of Great tits seen close to me at Sudha I have a note "Great tits *with a difference*." They were noticeably not typical, but I cannot say in what way, nor am I acquainted with the form to which they would belong.

BLUE TIT. *Parus cœruleus* (form ?).

Common in the olive-gardens and seen on Nidha. Resident.

WOODCHAT. *Lanius pomeranus* (Sparrman).

Only seen on one or two occasions. Drummond-Hay says: "Very common. Breeds."

CETTI'S WARBLER. *Cettia cettii* (Marm.).

This interesting and shy little warbler was always to be met in spring and summer (to end of June) wherever thickets fringed the water. The male, singing from the top of the bushes, drops suddenly out of sight on being approached.

SARDINIAN WARBLER. *Sylvia melanocephala* (Gm.).

Common in the open cistus scrub.

RUFIOUS WARBLER. *Aëdon galactodes* (Temm).

It seemed strange that so extremely fearless and noticeable a bird, one too so very familiar to myself any summer-day in Andalusia and in Egypt (*A. familiaris*?), should only have been observed on one occasion in Crete; but this was so.

[RUEPPELL'S WARBLER. *Sylvia rueppelli* (Temm).

A warbler which I saw frequently during the spring and summer, but could not then place, belonged no doubt to this species.]

BLACKBIRD. *Turdus merula* L.

In Crete I am inclined to believe there are two forms of the blackbird, and it was disappointing that I could never clear this up by securing specimens. Twice only I saw a blackbird on the low ground by Murniés near Canea in May. It appeared to be identical with ours in its size and ways, but was very wild, and probably was on passage. I had no gun on either occasion. On the other hand there is a mountain-blackbird which always seemed to me to be distinct. They were seen on Hómalo on May 12 and on Nidha on June 10th. The alarm note sounded strange; it seemed to my ear shriller than that of the common blackbird, and the bird appeared to be smaller.\* But even in summer the cocks were extremely wild, although presumably their hens were then sitting. In vain I followed one bird round a good part of the plain of Hómalo; it kept disappearing in the boulders and rising out of shot, and finally rose in the air and cut the chord of the circle away back to its starting-point. Commander Lynes found the blackbird nesting.†

BLUE ROCK-THRUSH. *Monticola cyanus* (L.).

An inhabitant of the gorges. Young had flown on Hómalo by May 13th.

WHEATEAR. *Saxicola cenanthe* (L.).

This bird appeared to have a distinctly lower general range than the succeeding species. It is true I saw and obtained it on Nidha, where they were feeding their young on June 9th, but that was the highest point at which it was observed. But at its own average altitude, i.e. up to about 3,000 feet, was pretty generally distributed. On the long rocky slopes facing south and running down to Rukâka it was breeding in considerable numbers. It was unexpected to find that a species that is at the pains to travel for nesting purposes up to north lat. 80° should be content—in a mountainous country like Crete—to occupy ground at altitudes that were by no

\* In mountainous countries the apparent sizes of birds greatly varies owing to varying conditions of light and atmosphere. On the effect also of tenuity of the air on sounds Raulin has an interesting little remark, one which I can confirm from my own experience. He says [*Description physique de l'Ile de Crète*, I 117]: "Life in these high regions manifests itself by the presence of certain small birds that make quite a loud noise when flying in the solitude (contrary to what I had supposed) because of the rarification of the air."

† Op. cit.

means the equivalent of its polar latitudes, while a Mediterranean species, speaking generally, occupied higher ground.

**BLACK-THROATED WHEATEAR.** *Saxicola xanthomelæna* (H. and E.).

Black-throated and Black-eared wheatears were common in the White Mountains up to at least 6,000 ft. They ranged, I thought, a good deal higher than the last-named species. The brilliant plumage of the males and their habit of singing on the wing made them very noticeable.

**STONECHAT.** *Pratincola rubicola* (L.).

Patchily distributed and apparently breeding. A pair seen from time to time in different parts of the northern side of the island, and never at high altitudes, but always on low stony and scrubby lands. A male specimen obtained was indistinguishable from our bird.

**REDSTART.** *Ruticilla phænicurus* (L.).

Seen on migration only.

**NIGHTINGALE.** *Daulias luscinia* (L.).

Nothing was seen of the nightingale during the latter part of May nor in June, possibly because I was not then in favourable districts, for they were often heard in suitable places in spring. The last occasion on which I have any note of them is May 9th by the river of Plataniás, but I fancy I heard them rather later than that.

**ALPINE ACCENTOR.** *Accentor collaris* (Scop.).

Abundant in the higher mountains where it breeds up to at least 7,500 ft. They were feeding their brightly-spotted young on Ida on June 6th. When approached the young birds always dropped into crevices and holes among the rocks.

**WREN.** *Troglodytes parvulus* (K. L. Koch).

The wren was only observed at high altitudes—e.g. on Nidha Plain and on Ida within less than 500 ft. of the summit. In the latter case a bird was searching for food in the crevices of the drifted snow. A very faded specimen obtained on Nidha proved to be indistinguishable from the typical form. Commander H. Lynes, R.N., found it breeding (*Ibis*, 1912, VI., No. 21, p. 171).

**SWALLOW.** *Hirundo rustica* (L.).

Very plentiful over the Plátanos River during spring. I have no note of having seen it later.

**HOUSE-MARTIN.** *Chelidon urbica* (L.).

The same remarks apply to this species.

**CRAG-MARTIN.** *Riparia rupestris* (Scop.).

Many seen on Hómalo on May 13th. Doubtless it breeds



there, for I am sure they were also there on June 30th; but I find no note about this.

ALPINE SWIFT. *Cypselus melba* (L.).

Several "white-bellied swifts" were flying about the highest crags of Hómalo on May 14th.

NIGHTJAR. *Caprimulgus europæus* (form?).

Nightjars were seen hawking on several occasions. Probably a local race.

ROLLER. *Coracias garrulus* L.

Seen on two occasions only, the second of which was June 30th.

LITTLE OWL. *Athene noctua* (Scop.).

Abundant, its monotonous call constantly heard about the monasteries and old olive-gardens.

ELEONORA FALCON. *Falco eleonoræ* (Gené).

A hobby-like falcon was seen more than once, and was doubtless of this species.

PEREGRINE FALCON. *Falco peregrinus*.

Peregrines, presumably *punicus*, were often seen on the wing. One—evidently the "falcon"—which rose from the ground and flew up into the mountains, was remarkable for the very light grey of the back.

KESTREL. *Falco tinnunculus* (L.).

Common; nests.

MONTAGU'S HARRIER. *Circus cineraceus* (Montagu).

A pair seen quartering the ground on the Plátanos flats on several occasions early in May.

GRIFFON-VULTURE. *Gyps fulvus* (Gm.).

Often seen soaring.

LÄMMERGEYER. *Gypætus barbatus* L.

The bearded vulture was only seen on one occasion, on Mount Ida, when one sailed round above me within a gun-shot.

LITTLE BITTERN. *Ardetta minuta* L.

Seen once on May 9th, near the river Plátanos.

BITTERN. *Botaurus stellaris* (L.).

One shot by Mr. Claude Grant, in March, 1908, on swampy ground near Alikianú during my first visit to Crete.

FERRUGINOUS DUCK. *Fuligula nyroca* (Güldenstädt).

Observed on a marsh near Alikianú in March, 1908.

ROCK-DOVE. *Columba livia* (Gm.).

Common in the sea-caves.



**TURTLE DOVE.** *Turtur communis* (Selby).

Vast numbers pass through the island on migration.

**RUFF.** *Machetes puguax* (L.).

Obtained on migration in May, the male in winter plumage.

**GREEN SANDPIPER.** *Totanus ochropus* (L.).

Seen on migration in May.

**COMMON SANDPIPER.** *Totanus hypoleucus* (L.).

Seen in May by the river Plátanos.

**WHITE-WINGED BLACK TERN.** *Hydrochelidon leucoptera* (Schinz.)

One frequented the estuary of the Plátanos River, and was always to be seen during the early days of May.

**WATERHEN.** *Gallinula chloropus* (L.).

Seen on the stream of the Halmyrós, near Candia, on June 13th.

**QUAIL.** *Coturnix communis*. Bonnaterre.

Heard in the spring, here and there in the corn.

**THE CHUKAR PARTRIDGE.** *Caccabis chukar* (J. E. Gray).

I should fancy the birds are but thinly distributed over the island. A pair had their strong-flying young near Apodhulo on June 6th.

## A GENERAL VIEW OF THE CRETAN FLORA.

### I. SMALL FLOWERING PLANTS.

THIS chapter is designed to give a general idea of the wild vegetation of Crete, and more particularly of that of the higher and of the mountainous ground. In the main the flora of this island agrees with that of the Peloponnesus and of the Cyclades; yet it also has its own characteristics, which it owes to the fact that it lies clear to the south of the Archipelago, between the Aegean and the Libyan Seas, and has further a backbone of mountains that rise in two places to over 8,000 ft. and during more than half the year are capped with snow.

The following observations do not extend beyond the end of June.

It is always interesting in the ascent of a mountain, to observe the different altitudes at which plants are respectively found. This has been referred to elsewhere, and we have seen how, in ascending the White Mountains or the Ida range, plant after plant comes into notice in regular succession. The converse of this is of course equally true: one gradually loses plants of the valley which have pushed up their frontiers into the increasing rareness of the air and the prolonged cold of winter and spring, until they can creep no further. Thus we have seen that *Salvia triloba* under the cliff of lake Kurnás was a stout shrub with woody stems like those of an old furze-brake, but up in the mountains merely a humble plant some eighteen inches high.

But the tenuity and chill of mountain-air tends to bring high altitudes into parallelism with conditions that obtain in high latitudes. We should thus be prepared to find upon Mediterranean mountains plants which were absent from their valleys, which might indeed be not met with again (unless on intervening mountains) until they occurred in the plains or valleys of the north, where latitude formed the equivalent of their mountain environment. Instances of such plants are found in the families, among others, of draba, arabis, saxifrage, sedum and myosotis. Upon Ida's summit grows a rock-cress allied to *Arabis caucasica*, a forget-me-not *Myosotis idaea*, and an alyssum *A. idaeum*.

Another determining influence in the distribution of plants will obviously be the character of the soil. We may illustrate this by so well-known a plant as our bracken *Pteris*, a form of which has a restricted range in Crete. One might say that this fern was essentially characteristic of sandy, or of heathy lands; in England, none the less, it is scattered over a great variety of soil. But in England geological conditions are so varied, one formation so quickly succeeding the other, that the spores of the bracken can easily pass the boundary and root in less favourable soil, say in that of chalk or a very stiff, cold clay. Here it would maintain its existence in a stunted form and, becoming weaker and thinner, gradually fail, until in the middle of the cold clay-region it would scarcely be found at all. But the geology of Crete is broadly separable into three distinct formations—the high limestone-mountain, the lower ranges of schists and shales, and the tertiary (marine) plains. These schistose rocks, often broken down into beds of friable earth, strictly determine the occurrence not only of bracken but of *erica*, *arbutus* and other heath-loving plants.

The Ida plants referred to above are found at an altitude of about 7,000 to 8,000 ft. At a middle altitude, 4,000 to 6,000 ft., we find characteristic plants in a beautiful rose-coloured composite, *Crepis rubra* L., and a rose-coloured goat's-beard. The goat's-beard appears to be a rose-coloured variety of salsify (*Tragopogon porrifolia*), but it is not always easy to determine a plant from a dried specimen, and I hope that some future traveller may visit the White Mountains sufficiently late in the year to get the seed of this beautiful plant. In Crete it is a plant of the dry rock: it grows tall and finely by the side of the sun-baked mule-track.

I was struck by the fact that I never saw rosemary (*R. officinalis*) nor lavender (*Lavendula spica* L.), growing wild in Crete: they are said to be not common in any of the Greek islands. In the *Conspectus Florae Graecae* (Halácsy), the latter is mentioned as a Cretan plant, but the record is quoted by Alpini and von Heldreich from Monachini, who gives Melezés in Pediádha as the place where it is found. I have not been able to find the position of Melezés, but I travelled nearly the whole length of the eparchia of Pediádha without seeing this plant.

No one can visit the island of Crete in the spring and early summer, without being struck with the beauty of its flowering plants. With the increasing heat of the sun the low-lying rocky ground soon becomes bereft of the flowers which made it beautiful in early spring, and by June these must be sought for on the higher ground. But in March even so waterless a



track as the Akrotiri has its patches of colour. The blue flowers of love-in-a-mist (*Nigella Cretica*) are noticeable on this and on the lower ground.

An interesting plant on the rocks of the Akrotiri is the curious St. John's Wort (*Hypericum empetrifolium*), whose leaves and habit of growth bear a close superficial resemblance to those of the crowberry of Scotland and Arctic Europe; a larger member of the same family (*Hypericum hircinum*), flourishes in great abundance by the Platános River and elsewhere. Various species of the *Malvaceae* are represented in Crete: by far the most noticeable of these is the beautiful *Alcea ficifolia* (*Alcea rosea*) whose large rose-coloured blooms occur here and there, and chiefly by the streams.

Of the Valerians, *Valeriana asarifolia* is common on the lower hills, and in one ravine, and here alone, in the Keramia district of the White Mountains I found a white Valerian in flower, of which my specimens were unfortunately lost. This plant I take to be *Valeriana tuberosa* L. It seems to have been only found by Sibthorp (*Prod.*, I 24). The number of Composites in Crete is naturally very large: camomile (*Matricaria chamomilla*) is a weed everywhere on waste ground, cornmarigold (*Chrysanthemum segetum*) turns many of the cultivated fields a golden yellow, and round the ramparts of Canea still grows the bi-coloured chrysanthemum (*Ch. coronarium* L.) of which Tournefort speaks. Among *Boraginaceae*, alkanet (*Anchusa italica*) and bugloss (*Echium plantagineum*) are common by the roadside and up to some 500 ft. The traveller cannot spend a day in the hills behind Canea without seeing *Salvia triloba* and *Phlomis fruticosa*, while another Labiate, the pink-flowered *Salvia pomifera* is to be met with within a few hours of the town, e.g. in the gorge of Thériso. A curious characteristic of this plant is the gall which is commonly found on it. These galls are large, green, and filled with a sweet water and are usually held at the extremity of the branches in the centre of a ring of aborted leaves as in an involucre. The native Cretans constantly gather and eat these galls as a refreshing specific against thirst.

The family of *Liliaceae* presents some very interesting examples. The Cretan Tulip (*Tulipa cretica*) is found above 5,000 ft. in the White Mountains, Ida, and elsewhere: it has an exasperating habit of growing up through the centre of a spiny bush, such as *Ononis diacantha*. *Gagea foliosa* with its crocus-like flowers is found near the snow. A small fritillary obtained in the White Mountains still remains to be identified: it does not appear to be *Fritillaria messanensis* Rafin, which von Heldreich alone recorded from Crete, saying that he found



it in the pine-wood above Anópolis; nor would this situation at all correspond to the high and naked position by the melting snow in which I found my plant, which was there in seed. A rather remarkable absence from Crete, considering that it is so familiar a plant from Spain to Syria, is *Scilla hyacinthoides*. It is true that Olivier (*fidé* Raulin) mentions it in his list, but the authority is not given. It is not recorded by any other botanist, nor did I see it. The glory-of-the-snow (*Chionodoxa nana*) and the bluer *C. cretica* is found in company with the white yellow-eyed crocus (*C. sieberi*) near the bare summits by the melting snow. Both these plants come into flower the very moment the snow melts, flowering close up to the edge of the retreating snow and flourishing in the water of the melting. The shepherd on Ida told me that the wild goats are very fond of the leaves of the *Chionodoxa*, and certainly there is very little else for them to eat.

Four species of asphodel are found in Crete—*Asphodelus microcarpus* (*A. ramosus*) is of course abundant everywhere and is associated with *A. fistulosus* up to about 1,500 ft. The yellow asphodel (*Asphodelina lutea*) has a higher range. I only saw it in the mountains where it is common enough; it reaches in the White Mountains to some 4,000 ft. Another asphodeline *A. liburnica* Scop. was new to me, and I was delighted when I first found it growing in some rocks by the wayside, at about 3,000 ft., near Affendi Kavúsi. It is a slenderer plant than *A. lutea*, and the star-like yellow flowers open at irregular intervals on the stem, which gives it rather an air of distinction. The curious plant *Cytinus hypocistis*, like a red and yellow rosette, is very common: it is parasitic on the roots of the various species of *Cistus*.

Reference has been made to the large number of spiny plants in Crete, and the traveller will be struck by the fact that many of these grow in the shape of a close rounded cushion. Among those that have this form of growth are the poisonous spurge (*Euphorbia acanthothamnus*), which is very abundant everywhere, from about 100 ft. above sea-level up to some 3,000 ft., and the most beautiful little blue-flowered succory (*Cichorium spinosum*). Another spiny plant of the same habit is the spiny restharrow (*Ononis diacantha*) which grows on the absolute summit of Ida, and another (*Poterium spinosum*), which the women still commonly use as a filter in their water-pitchers, a practice referred to by very old writers.\*

\* "Crete," says Raulin (*Description Physique de l'Île de Crète*, I 81) "without doubt, can be considered as a land of spines and scent. The abundance of spiny plants is such that the people everywhere wear boots up to their knee, which they certainly would not otherwise do in a hot climate."

## II. TREES AND SHRUBS.

1. *Altitude of Occurrence.*

The small flowering plants, both annual and perennial, vary greatly as we have seen at different levels of altitude, and the same is not only true of the trees and shrubs but in their case is more easily noticed. By shrubs we shall mean low, bushy, woody-stemmed perennial plants.

Raulin has attempted certain general divisions of altitude which, with some modification, we may follow. To begin with we will take some trees and shrubs which are found only at definite altitudes of which they may be said to be characteristic, since they neither descend below that point nor ascend above it.

*Sea-level to 500 ft. : the level of the coast and the low plains.*—Here common lentisk (*Pistachia Lentiscus*), and large-seeded juniper (*Juniperus macrocarpa*) are found. In this region also tamarisk (*Tamarix parvifolia*), a willow (*Salix fragilis*), and the scented *Vitex Agnus castus* (allied to the verbena) grow by the streams. The almond and the quince are only to be seen on this level. (The quince takes its name of *Cydonia* from the ancient town and district of that name, now known as Khaniá or Canea.)

*500 to 2,000 ft. : region of the hills and plateaux.*—The common lentisk here gives place to another form with softer leaves and weaker stems; this is the terebinth (*Pistachia Terebinthus*). This species is very local: I found it on the foot-hills of Ida and on those of Lasithi to the south. A deciduous oak (*Quercus sessiliflora*, *fidé* Raulin) appears also to be confined to this level. Near the northern end of Lake Kurnás is a wood of these trees which, as we have seen, give to that area a resemblance to our New Forest.

*2,000 to 3,000 ft. : lower wooded region.*—Raulin, quoting von Heldreich, says *Rosa canina* L. grows on the Lasithi plain, which would bring it into this region.

*3,000 to 4,000 ft. : higher wooded region.*—I am not, from my own observation, aware of any tree or shrub which is entirely confined to this altitude. Raulin, again on the authority of von Heldreich, mentions just one, *Sorbus graeca* Lodd. (*S. cretica* Lindhl.) as being found on the summit of Mount Kophina.

*4,000 to 6,000 ft. : limit of true forest.*—The cypress (*Cupressus sempervirens*) falls into this group. An interesting tree of the same region is the Cretan maple (*Acer creticum*). I only observed this tree in the Ida Mountains. Tournefort saw it on Dikte.

This tree has, as a bush, three distinct forms of leaf: (1) the

three-lobed leaf characteristic of the maples; (2) a leaf in which the lobes are so reduced that it cannot be described as palmate at all; and (3) a leaf nearly oval, without any suggestion of the lobed form. These three forms may be all found on one branch or one shoot of a branch, or may be respectively confined to separate branches. In the former case the first form will be at the distal end of the shoot, the last form at the proxima



DEFENSIVE CHANGE IN MAPLE.

end. There are, of course, many maple-trees which deserve that name—many stand on the Nidha Plain with the trunk and limbs of a tree, and naturally the leaves of such trees are normal in character, even though here and there (as in our own English maple, *Acer campestre*) a tendency may be noticed towards the non-palmate form. But over considerable areas the maple is only maple-scrub; that is to say, it takes the



character of dense bushes, even though some may grow as high as ten feet. The great proportion of the leaves of these bushes are of the aborted form, while often from the centre of the bush rises a single stem clear above the rest of the bush and bearing normal palmate leaves and bunches of pink-winged seed-cases.\* It is easy to attribute this condition to the browsing of sheep or goats, but the point to be remarked is this—namely, that the arrested development of the leaves and the dense and impervious character of the bush is continued up to a height that is far removed beyond the extreme reach of any browsing sheep or goats. In other words the browsing of goats, added no doubt to the cold of the mountain winds, has gradually resulted in a change in the constitution of the plant, almost indeed into a dimorphic condition as far as function is concerned: the dense, small-leaved, undeveloped, impenetrable bush encircling and acting as a guard to the single flower-bearing shoot that rises from its centre. Nor is this all, for a further and even more striking modification is correlated with this. Should you unwarily attempt to break off a piece of the guard-bush, you are very likely to find your fingers checked by a sharp point; for on the twigs, in the place of the terminal pairs of leaves, a thorn projects: that is to say, the extremities of many of the axial and lateral shoots have become hardened and pointed. These points, although not so sharp as the thorns, say, of the hawthorn or sloe, are yet well-calculated to pierce the palate of any animal who should close its mouth upon them. This struck me as an extremely interesting example of modification by environment.

6,000 to 8,000 ft.: *bare, subalpine region*.—A characteristic of this range is the common juniper (*Juniperus oxycedrus*). This, which is very local, never in my experience attains to the size of a tree. One comes upon it, for example, in the White Mountains growing among the tumbled rocks, but in a stunted and often procumbent form; nevertheless it fruits quite freely.

A barberry, *Berberis cretica* L., is found high on both the White Mountains and on Mount Ida. The following note I find in my diary in reference to *Berberis cretica* is perhaps just worth giving here. It runs thus: "A matter of some interest is the point in altitude at which vegetation loses its normal habit and passes to the stunted and again to the creeping form. In the case of a mountain like Ida, browsed to its summit by sheep and goats, it is necessary to be extremely cautious

\* Although these forms have been described as varieties—*A. semiorbiculatum*, *A. trilobatum*, *A. obtusifolium*, etc.—they may all be found united in one plant.



in forming generalizations or, indeed, any deductions: one must take some shrub which is never bitten by animals. Such a shrub is the *berberis*. We are accustomed to read in works on travel such words as these, "as we got higher the trees and shrubs became more and more stunted and gradually ceased altogether." Yes; but when one is actually moving among them, it is difficult to take a comparative view: one is only aware that trees or shrubs which below were more luxuriant are now stunted. But the smooth and rounded sides of Ida afford an excellent opportunity of closely examining conditions from below, with the aid of a good glass. And if one does that, one observes that in the case of *berberis* taken *en masse*, there is in the aggregate nothing gradual about it. The *berberis* lies in three zones, quite fairly well-marked. You see a line where it becomes stunted; you see another where it is flat on the ground. I can only surmise that these two check-lines (so to call them) mark the *average* stages in duration and intensity of early and late frosts. Whether the prevailing track of local winds has anything to do with it, one cannot say. This *berberis* continues nearly to the summit, within some one hundred feet or so; here, the wind sweeping over the top stops it quite."

Though this was written at the time, I do not wish to push it too far; only I think the line it indicates might be interestingly followed by some other observer.

Between these altitudes also other true high mountain forms are first met with, such as the *Prunus prostrata* of Labill. This lovely but lowly little shrub creeps close over the rocks up to within even 100 ft. of the summit of Ida. Tournefort noticed the pink of its petals and spoke of it prettily as "*Prunus flore suaverubente*."\* Then the shrub-vegetation flattens down to creeping *berberis*, the little creeping plum, and a mountain buckthorn (*Rhamnus prunifolius*).

## 2. Range from Sea-Level.

Now let us glance at some of those trees and shrubs, cultivated or uncultivated, which like the lentisk, almond, quince, tamarisk, *vitex agnus castus*, and large-seeded junipers start from sea-level, but instead of dying out like these at some 500 ft. push up far higher.

\* Also he says, "Nothing is more surprising than a sort of Plumb-Tree, which all these Rocks are embellish'd with, and which flourishes in proportion to the melting of the Snow: its Stalks are not more than half a foot in height; the Branches are very bushy, loaded with Flowers of a flesh-colour: its Fruit is hardly bigger than a white Gooseberry."—*Voyage into the Levant*, I 52.

*Up to 2,000 ft.*—The myrtle (*Myrtus communis*), a shrub of the schistose formation, though it cannot be said to be generally distributed in Crete, flourishes exceedingly in certain districts; on the southern coast, as we have seen, it has given its name to village and river. It ascends as high as 2,000 ft., as for instance in the neighbourhood of Stravodhaxári, near Psykró; but at this elevation is of relatively small growth. The strawberry tree (*Arbutus Unedo*) is another tree which has just about the same range. The arbutus is by no means seen everywhere, even within these limits; it is abundant on the northern slopes of the White Mountains, as it is also said to be in Sélino. This is also the range of both the Cretan heaths—*Erica arborea* and *E. verticillata*. Oleander (*Nerium Oleander*) also occupies the same range, bordering the streams and running up the water-courses into the hills. In Crete, as a general rule, the oleander keeps to rocky ground, and does not grow by the streams that cut their way through alluvial deposits: here its place is taken by the plane-scrub and by the tamarisk. The black mulberry (*Morus nigra*) is not met with much above this altitude. A very beautiful shrub with large white scented blossoms which flourishes on the steep sides of the gorges (*Styrax officinale*), called by the native "Asteráki," also persists to about this altitude. There is much of it in the gorge of Thériso.

*Up to 3,000 ft.*—The plane (*Platanus orientalis*) outruns the myrtle and the arbutus, for it is found as high as 3,000 ft. The streams are bordered by scrub-plane which, although apparently of the same species as the plane-trees growing by the springs, bears leaves which are thick and stiff in texture and have a smooth and shining surface. Most of the tree-planes grow by the mountain-springs, and often these are fine old trees. The Mytos plane-tree described earlier is remarkable. Whence the actual trunk originated it is not easy to see, because that which is apparently a great trunk, but is probably the main root, is so closely laid against a great round rock and is so rugged and rock-like itself in texture that some examination is needed to discover where bark ends and rocks begin. Ivy (*Hedera helix*) covers the perpendicular rocks in many places up to 3,000 ft.: this is about its limit.

The vine, olive, and white mulberry (*M. alba*) are also cultivated as high as this; and the vines at this altitude seemed to be very flourishing.

It may be taken, then, that 3,000 ft. is about the limit of altitude reached by any tree or shrub that grows at sea-level.

## III. FORESTS.

The only trees which can be said to form forests are the cypress (*Cupressus sempervirens*, var. *horizontalis* Miller), the pine (*Pinus halepensis* and *P. Laricio*), and the ilex (*Quercus Ilex*); and the disposition of these forests is interesting. As far as my observations go, the cypress in Crete is entirely confined to the western half of the White Mountains, west of a line drawn north to south from Phræe, say, to Haghiá Ruméli. This tree is also strictly confined to the limestone; I believe that it does not pass the limits of that formation in any direction. The cypresses are being unmercifully treated, and few really fine trees are to be seen. The largest are said to be a few in the gorge of Samaría near the shrine of H. Nikólaos, and these are held as sacred.

The ilex is not confined to the limestone; on the contrary it even (near Kritsa) just invades the tertiary beds. In western Crete the ilex forests lie along a line drawn north to south, from Prósnero in Apokóróna nearly to Nímbros. In this district, as mentioned elsewhere, terrible havoc was being done by the larva of the gipsy-moth. Although there are a good many ilex trees both on the western and eastern slopes of Mount Ida, there is, I believe, nothing like a forest until one reaches the eastern slopes of the Lasithi range. Finally the largest ilex forest in the island, if the information given me by a native be correct (as I believe it to be), is along the length of the limestone mountain called Alóida, in Mirabella.

If we except a patch of pines in the Arádhena district (belonging, I believe, to the species *P. halepensis*, and heavily tapped for resin), I am inclined to think that the pine as a forest is absent from western Crete. I have not travelled in Sélino, Kísamos, or the greater part of Khaniá, but all enquiry pointed to central and eastern Crete for the sites of the great pine-forests. It is probable, as Halácsy says, that *P. halepensis* is confined to the very high ground. I shall not attempt to discriminate between the respective distribution of *Pinus Laricio* and *P. halepensis*, the two species to which the pine trees of Crete are to be referred, but shall speak of the forest-trees generally as pines. At the same time it is certain that the stone-pine (*Pinus pinea*) is not, as is sometimes stated, a Cretan tree. There are individual trees at Arkhádhi, a few (seven I think) I saw below Damásta, and others have been noticed here and there in the island, but these are evidently introductions, some of them or their ancestors dating no doubt from Venetian days: they are no more to be regarded as Cretan trees than the pomegranate which has now run wild in certain districts.



The pine-forests, then, of Crete instead of being scattered generally over the island, as is more usually the case in the Mediterranean, appear (if we except the restricted group in the Arádhena district) to be practically confined to two large forests, one in the eastern part of central Crete on the southern slope of Dikte, descending almost as far as Kalámi, and east and west, included between the villages of Kephalovrýsis and the river Lygies beyond Mallaes. The other lies in eastern Crete to the south of the mountain called Affendi Vouno, and roughly stretches from the village of Epánokhorió to some point west of Rukáka or may possibly be continued at a higher altitude along that mountain range to its eastern limit. Doubtless these were once noble forests, but axe and fire have now so thoroughly done their work that over large areas only charred stumps remain. I do not remember to have seen in the island a really fine old pine. This lazy, wasteful, and reckless practice of burning through the butts of the trees has also resulted in forest fires that have in many places killed every seedling tree. I ventured to submit a representation upon that subject to the Government Department concerned with the forests of the island. This was courteously received, but in reply it was pointed out that the present laws against that practice were sufficient, could they be enforced; and that one difficulty lay in the fact that much of the forest was in private hands. I was, however, assured that in view of my letter, efforts would be made to enforce the laws more effectively. Let us hope it may be so; the complete destruction of the forests which is now threatened might induce an aridity in the climate which would considerably affect its agricultural outlook.

#### IV. SOME CRETAN PLANTS.

Although the number of species of Cretan plants are given as over 1,300, a certain proportion of these should probably be regarded as introductions. Of these species no fewer than 78 bear a specific name derived from the country, usually *creticus*, but in five instances *idaeus*, and in two instances *sphakioticus*. This is chiefly due to the collectors of the Sixteenth Century—notably to Onorio Belli. The names of the explorers of Crete are also given to various plants (e.g. *Erysimum Raulini* Boiss., *Brassica Tournefortii* Gonan, *Ononis Sieberi* Bess, *Vicia Sibthorpii* B.H.).

The following names of conspicuous plants which I observed or collected may be found useful by future visitors to the island.



Some of the localities are put in brackets; when they are not mentioned it may be usually assumed that the plant is pretty generally distributed.

- ✓ *Ranunculus chaerophyllos* L. (White Mountains.)
- ✓ *Delphinium staphys agria* L. (Cultivated fields.)
- ✓ *Paeonia cretica* D.C. (*P. peregrina* Mill., White Mountains.  
A beautiful scented white peony with golden stamens.)

*Berberis cretica* L.

*Corydalis uniflora* Sieb. (Only seen on the summit of Ida, 8,000 ft.)

*Capsella Bursa-pastoris* L. (Ida.)

*Erysimum* sp.? (*E. Raulini* Boiss.? White Mountains.)

*Aubrietia deltoides* L. (White Mountains, 5,500 ft.)

*Arabis*, sp. near *A. caucasica* Willd. (Summit of Ida.)

- ✓ *Alyssum idaeum* Heldr. (Yellow; summit of Ida. Rather curiously, this species—a minute plant on Ida's stormy top—seems to have been previously noticed by no one but von Heldreich.)

#### ✓ *Cistus*.

The rock-roses of Crete require careful observation, or the near resemblance of one species to another may easily lead to confusion. There are five well-ascertained Cretan species:—

1. *Cistus incanus* L. (var. *villosus*).—This is the *C. masecundus* of Tournefort, and is by far the most abundant example. It is found everywhere in March and April on the lower slopes mixed with other bushes. The colour of its petals is a light rose or a pink.

2. *C. parviflorus* L.—This is also a common plant; it grows perhaps in rather more sheltered positions than the former, being found mostly in hollows or on the windless sides of rocks: there is much of it close to Khalépa and in parts of the Akrotiri. It flowers at the same season as the former, but the petals are smaller and of a distinct rose-colour.

3. *C. salvifolius* L.—In the bottom and sides of ravines from the lowest slopes of the mountains up to some 2,600 ft. or so, is seen a sun-rose with clear white blossoms: this is the sage-leaved cistus. It appears to flower rather later than the other, but this may be a question of altitude.

The above are all the species of this genus *Cistus* to which I can speak from personal observation. But the following well-known species is sure to be seen in flower by visitors who happen to visit Crete quite early in the year.

4. *C. creticus* L.—This is the *Cistus* which yields laudanum. Although more than one species in turn has been made to bear

the name *ladanifera*, or *ladaniferus*, and although the English seedsmen still sell plants under this name, no *cistus* is now botanically so called. None the less, Tournefort's "*Cistus Ladanifera Cretica flore purpureo*," is the plant in question. Tournefort's account of the gathering of the *laudanum* is interesting. He says: "Travelling on towards the sea, we at length found ourselves among those dry sandy hillocks over-spread with the little shrubs that yield the *laudanum*. It was in the heat of the day, and not a breath of wind stirring; circumstances necessary to the gathering of *laudanum*. Seven or eight country fellows in their shirts and drawers were brushing the plants with their whips; the straps whereof, by rubbing against the leaves of the shrub, lick'd up a sort of odoriferous glue sticking on the leaves: 'tis part of the nutritious juice of the plant, which sweats through the texture of those leaves like a fatty dew, in shining drops, as clear as turpentine.

"When the whips are sufficiently laden with this grease, they take a knife, and scrape it clean off the straps, and make it up into a mass or cakes of different sizes; this is what comes to us under the name of *laudanum* or *labdanum*. A man that is diligent will gather three pounds two ounces (an oke) per day, and more, which they sell for a crown on the spot: this kind of work is rather unpleasant than laborious, because it must be done in the sultry time of the day, and in the deadeast calm." \*

Finally there remains a small white-flowered *cistus* which I have not seen:

5. *C. Monspelienensis* L. (obsolete *C. ladaniferus*), which is said by Sieber and von Heldreich to grow on maritime rocks in April, but only between Chersonesos and Malia (Mirabella).

*Viola fragrans* Sieb. (Eastern spurs of Ida.)

*Tamarix parvifolia* L.

*T. Pallasii* Desv. (Streams near the sea.)

*Hypericum empetrifolium* Willd. (Akrotíri. When not flowering might easily be mistaken for an *Empetrum*.)

*H. hircinum* L. (This fine St. John's wort flourishes in damp ground by the Plátanos River.)

*Rhamnus prunifolia* Sibth. (Highest ground.)

*Rh. oleoides* L. (Green-berried).

*Alcea rosea* L. (*Altea ficifolia* S. & S. This tall and large-flowering hollyhock is very local; I only observed it near Askíphu on the southern side.)

*Pistachia Lentiscus* L.

*P. Terebinthus* L. (Rather local, but seen in various places.)

\* Voyage into the Levant, I 79.

- Silene cretica* L. (White Mountains, 5,500 ft.)
- Ononis diacantha* Sieb. (This plant, growing in spiny cushions, is the only one of any size on the summit of Mount Ida.)
- Medicago hispida* Willd. (White Mountains.)
- Astragalus creticus* Lam. (Ida.)
- Prunus prostrata* Lab., var. *discolor* Raul. (Ida. A lovely little flower, pink and sweet-scented. The plant creeps close over rocks, 6,000 to 8,000 ft.)
- Poterium spinosum* L. "Aphana." (Rocky ground by the sea, Goniá, etc. Used by the women from time immemorial as a strainer in the mouths of their water-pitchers.)
- Crataegus monoecyga* Jacq. (This hawthorn is the only other tree on Hómaló excepting the following species.)
- Pyrus amygdaliformis* Vill. (Many on Hómaló.)
- P. parvifolia* Des. "Achlada." (The wild pear of Crete.)
- Saxifraga chrysoplenifolia* Boiss. (All high mountains.)
- Putoria calabrica* L.
- Pimpinellus Toragium* Vill. (White Mountains, 5,000 ft.)
- Eryngium cyaneum* Sibth. (Common.) *creticum*
- Valeriana asarifolia* Desf. (White Mountains, in deep gorges.)
- Helichrysum italicum* Roll.
- Tragopogon porrifolium* L. (White Mountains. Rose-coloured "Flore pulchro" Tourn.)
- Crepis rubra* L. (White Mountains, 5,500 ft. Rose-coloured.)
- Amanthus filicaulis* Boiss. (Akrotíri, Rhódopus.)
- Matricaria chamomilla* L.
- Chrysanthemum segetum* L.
- Ch. coronarium*. (On the ramparts around Canea. Mentioned by Tournefort.)
- Echinops spinosus* L. (Common.)
- Cichorium spinosum* L. (Sea coast. Goniá, etc.)
- Campanula tubulosa* Lamk. (Maláxa, etc.)
- Petromerula pinnata* L. (= *Phyteuma pinnata*. Walls of Maláxa, etc.)
- Arbutus Unedo* L. (Northern slopes of White Mountains up to about 2,500 ft. on schists.)
- A. Sieberi* Klotzsch. (Local. Damasta.)
- Nerium Oleander* L. (The oleander follows the streams into the mountains up to about 3,000 ft.)
- Erica verticillata* Forsk. (Extremely local. Only obtained near Rukáka.)
- E. arborea* L. (Locality same as *Arbutus Unedo*.)
- Olea europea* L. ssp. *oleaster* wild shrub olive
- Erythraea maritima* L. (White Mountains, 5,300 ft.)
- Echium plantagineum* L. (Sides of roads. Goniá, etc.)
- Anchusa caespitosa* L. (High mountain-slopes and fields.)



- A. italica* L. (Common on low ground.) *azurea*
- Myosotis idaea* Boiss. et Heldreich. (One of the three or four plants of Ida's summit.)
- Onosma erectum* Sibth. et Sm. (White Mountains, 6,000 ft.)
- Verbascum spinosum* L. (by the / place near the sea)
- Linaria Pelisseriana* L.
- Veronica thymifolia* Sibth. et Sm. (Ida.)
- Vitex Agnus castus* L. (By streams on low ground.)
- Calamintha alpina* L.
- Stachys spinosa* L.
- Ballota pseudodictamnus* L. *Fake d. Tany*
- Phlomis fruticosa* L. "Phascomelia."
- Ph. lanata* Willd.
- Salvia triloba* L.
- Marjorana macrophylla* Benth.
- Acanthus spinosus* L.
- Statice sinuata* L. (Sea-shore. Goniá.) *Limnium sinuatum*
- Thymbra capitata* Griseb. *Coridothymus*
- Cytinus hypocistis* L. (Parasitic on *Cistus*.)
- Euphorbia acanthothamnus* Heldr.
- Eu. dendroides* L. (Very local. Among ruins.)
- Daphne sericea* Vahl. (High mountains.)
- Morus alba* L. (Grows on higher ground than the next.)
- Morus nigra* L. (Almost every mountain-village has its old mulberry-tree. Fewer are now planted as the silk-weaving has declined.)
- Quercus flex* L. "Prinos."
- Q. sessiliflora* D.C. "Drys."
- Q. lanuginosa* Lam.
- Q. coccifera* L. (Of bushy habit, this gall-bearing oak ascends only to about 500 ft.)
- Acer creticum* L. (See note in text.)
- Platanus orientalis* L.
- Pinus halepensis* Lamk. (Low down between Askíphu and Anópolis.)
- Pinus Laricio* Pori. (Higher up.)
- Cupressus sempervirens* var. *horizontalis*. (Gorge of Samaria, White Mountains.)
- Juniperus macrocarpus* L. (Near the sea, west side of gulf of Mirabella.)
- J. oxycoceus* L. (Only in the high mountains, here and there.)
- Crocus Sieberi* Gay., var. *heterochromos* Hal. (Ida. White Mountains.)
- Asphodelus fistulosus* L. (Common.)
- A. ramosus* L.
- Asphodeline liburnica* Scop. (Local.)



*Gagea foliosa* Presl. (Edge of snow in May.)

*Chionodoxa nana* R. et Sch. (Edge of snow in May.)

*Arisarum vulgare* Targ.

*Asparagus aphyllus* L. (The young shoots, not spiny like the rest of the plant, are eaten by the Cretans, as they are by the people of other Mediterranean countries.)

*Orchis* sp. ?

#### V. PRINCIPAL WRITERS ON CRETAN PLANTS, WITH DATES OF THEIR PUBLICATIONS.

1548.—Pierre Belon stayed a long time in the island. Assassinated in 1564 : aet. 47.

1594-96.—Onorio Belli was one of two clever medical doctors of Venice, established in Canea. He described 43 species.

1694.—John Ray got together all he could from old writings, and published an appendix to his work on Extra-Britannic plants, called *Stirpium Creticorum rariorum Catalogus*. He made the number 208.

1708.—Jos. P. de Tournefort, sent out by Louis XIV. He does not give localities, but in his *Institutiones Rei herbariae* uses the term "Creticus." He brought up the number to 306.

1875-94.—John Sibthorp went on a three years' voyage into the East with a friend, J. Hawkins, and one Ferd. Bauer, a beautiful draughtsman. He only explored the White Mountains and Khaniá. Wrote the *Flora Graeca*. Died 1796 : aet. 38.

1806-13.—J. E. Smith (Pres. Linn. Society) published *Florae Graecae Prodromus*, 2 vols. Also from 1806-32 he edited and published the greater part of the large work, Sibthorp's *Flora Graeca*.

1833-40.—J. Lindley published three further volumes of the above. In 34 years, therefore, were published these ten splendid volumes, with 966 plates. Of these 330 species are named as Cretan and 185 are figured.

1823.—Franz Wilhelm Sieber, a German physician, stayed there eleven months. Published various lists ; in 1823 he wrote his *Reise nach der insel Kreta*. He accounts for 500 species.

1869.—Victor Raulin was in Crete May to December, 1845.  
He records 750 species.

1846.—Th. von Heldreich added 588 species. These two  
botanists together brought the number up to over  
1,300 species.

1904.—E. de Halácsy : *Conspectus Florae Graecae*. (Leipsic.)

The following will also be found useful:—

1869.—Emanuel Weiss : *Beiträge zur Flora von Griechenland  
und Kreta*.

1890.—T. Ostermeyer : *Beiträge zur Flora von Kreta*. [B. G.,  
p. 291, Vienna.]

1893.—Antonio Baldacci : *Risultati botanici del viaggio compiuto  
in Creta* [Malpighia IX, Geneva].

## PHYSICAL CHARACTERS OF CRETE.

CRETE is above all else an island of mountains, springs and caves. Except at one point where an almost unbroken plain reaches across from the Aegean to the Libyan Sea, a backbone of mountains runs through the island from one end to the other. These mountains rise at two points to over 8,000 ft. in height, and until late in the spring are covered with snow that persists in the drifts right throughout the summer. The highest summits are those of Theódoro in the White Mountains (Western Crete), the summit of Ida, that of Dikte in the Lasithi range (Central Crete), and of Romanáti in the Sitía Mountains (Eastern Crete). Each of these four ranges is probably due to a separate upheaval. They are masses of limestone, their summits probably representing the old elevated table-land carved by denudation into mountain form. A sounding taken by Spratt shows that we may perhaps regard the 8,000 ft. of Mount Theódoro as merely the visible portion of a mountain some 20,000 ft. in height.

“Even at only 15 miles to the south from the south-west extreme of Crete we found by a single sounding, but perfectly reliable, a depth of no less than 1,950 fm. or nearly 12,000 ft., and in all probability this is not the deepest, being the only one taken. Thus, as the White Mountains at this end of the island are 8,000 ft. high, there is a submarine valley under it, or rather off it, that is about 4,000 ft. deeper below the surface of the sea than either the White Mountains or Ida are above it. Therefore if we add the height of these mountains, viz. 8,000 ft., to this remarkable depth so near to the island of Crete, we have a result indicating a difference of level between the bed of the Mediterranean here and the top of the White Mountains of nearly 20,000 ft. in a distance of about twenty-five miles; thereby giving a contour of the subaërial and submarine strata of the earth at this part of the Mediterranean almost equal in vertical dimension to that of some of the highest ranges of the world, and exceeded by few in boldness.” \*

A glance at the map will show that the southern coast west and east from the gulf of Dhybáki forms two long stretches of scarcely indented shore-line while the northern coast is broken by various large bays and promontories. Central Crete

\* *Travels and Researches*, II 278.

is sharply marked off from Western Crete on the one side and Eastern Crete on the other respectively by a deep gulf and a low neck of land. Each division of the island contains its own separate mass of mountain; Central Crete, indeed, has two such masses. To these conditions the following interesting geological facts are related and will impress themselves upon any observant traveller.

The centre of the different upheavals runs along a line not far from the southern coast. From this point the strata dip towards the north-east; the mountain-incline getting lower and lower and lengthening out with the decrease of upheaving energy, until its last efforts to the north are represented by outlines such as the peninsula of Akrotíri, the capes H. Ioannis and Sidero, the island of Dhia and the Dionysiades.

In the course of these upheavals there were certain great faults forming deep valleys which, having become nearly filled to their brink with products of subaërial denudation, now have the form of large plains high up in the mountains. Three of these plains are of considerable size and will be found described in other chapters of this book. Spratt has pointed out that the bay of Sudha with its depth at one point of 120 fm. must be regarded as "one of these basins, but submerged below the sea-level."\*

Closely correlated with this is the following interesting fact, namely that each of the three inlets of the northern sea, that is to say the bay of Retimo, the bay of Candia, and the gulf of Mirabella, has on its western boundary a curious tarn of salt or brackish water, sometimes of profound depth, called an Halmyrós.† Two of these have been fully described earlier in this book. Water filters along the fall of the bedding from south-west to north-east and percolates down to the subterranean passages that exist in the limestone, to emerge eventually on the coast and find an exit in one of these tarns, from which again it flows away in a river to the sea. The one which is situated in the gulf of Mirabella flows strongly, and is of particular interest because it appears to be comparatively recent in origin—to have replaced the original exit, which is not far off, and has now no channel to the sea. Spratt who took measurements and soundings described this aborted Halmyrós as a pool about fifty yards in diameter: "It is separated from the sea by about twenty yards of low ground only, and yet this pool was found to have a depth of 210 ft. in the centre—a depth which is not attained in the adjacent sea within two or three miles of the coast."\*

The springs of Crete are remarkable. However high up in

\* *Travels and Researches*, I 148.

† The aspirate is silent.



the mountains as the traveller may be, a spring can always be found for his midday halt, and another by the close of the thirstiest day, near which he may bivouac. The mountains collect the water of clouds and snow and give it out again as springs. As Tournefort remarks: "Mount Ida is a huge alembick which supplies all around it with water, i.e. nearly one-third of the island."\* Raulin observes also of Mount Kedros that, according to tradition, it has one hundred and one springs.

These Cretan springs are all of course well known to the natives; often they are shaded by a large plane-tree, or higher up in the mountain by a walnut, higher still by a maple. Certain of them have long troughs attached, round which the flocks crowd to drink; these troughs are hollowed out from trunks of trees. Some of the springs issue with great force from the rock, and give rise to considerable streams. In another chapter we have spoken of the fresh-water spring that is said to rise up in the sea and provide drinking-water for the boatmen. Doubtless this extraordinary spring is the exit of one of the subterranean rivers in which the water has been held prisoner by the strata until it has at last found a way of escape at a distance of some kilometre and a half from the coast. Such an occurrence though remarkable is not unique. There are similar springs in the sea off the coast of Australia and of South America.

Certain of these springs were, like the caves, centres of religious worship in ancient times.

As we should expect in a country of snowy mountains, there are many rivers in Crete. The largest in Western Crete is the Plátanos, or the river of Plataniás, and the largest in the whole island is said to be the Anapodhári, near Mount Kératon. Both these rivers, though wide and impassable when swollen by the rains and the melting snow, are reduced in late summer to little rivulets that scarcely struggle to the sea. Most of the rivers either dry up entirely in late summer, or throughout a great part of their course.

The scenery of Crete is undeniably beautiful. Considering its southerly latitude, the island is very green. The plains with their crops, the foot-hills with their vineyards and young corn, are pleasant to look on, while immense numbers of the grey-green olives give a hazy softness to much of the lower landscape. Then above this comes the wild scrub—heaths, arbutus, lentisk, or myrtle—on the red rocks and earths of the schists; and higher yet the dark cypresses and pines carry the eye up to the peaks and corries of the bare grey limestone mountains and to the summer remnant of the glittering snow.

\* *Voyage into the Levant*, I 144.

## HARBOURS AND ANCHORAGES.

OF course no yachtsman would sail to Crete without a copy of the *Mediterranean Pilot*; the sailing directions drawn up by Captain (afterwards Admiral) Spratt and based upon his soundings tell all that is to be told. The following remarks are merely intended to give anyone who may contemplate a cruise in those waters a general idea of conditions on the Cretan coast.

There are but two really good harbours in Crete: the first is Sudha Bay. Sudha is, I suppose, the finest natural harbour in the Mediterranean. This great inlet is over seven miles long, and is of a nearly constant width of over two miles throughout its whole length. Its greatest depth is 122 fm. The harbour is all but land-locked, for its narrow mouth is partly closed by two islands, of which the larger, known as Sudha Island ("La Culata" of Tournefort's time), one of the last points retained by the Venetians, is covered by the remains of their great fortifications, part of which is so well preserved that it was occupied by a British military guard during the Concert of the Powers.

No Cretan harbour is secure from those sudden local squalls which beat down from the mountains. These apart, the harbour of Sudha is sheltered from every wind that blows. Temporary shelter may be obtained under the south-west lee of Sudha Island, but this is not sufficient in the case of a strong easterly gale, which may keep a yacht prisoner in the interior anchorage for several days. The holding is not good on the northern but good on the southern side, off Tuzla. The only other harbour of real importance is Poros, one I have not visited. It lies on the south-west of the peninsula of Spina-longa, and is described as "the only inlet on the eastern side of the island that offers safe shelter for large ships in a time of north-easterly winds. It is more than a mile wide, has a depth of 15 to 20 fathoms and a muddy bottom. It is possible to use it as a shelter from every nautical aspect."\* Spratt says: "the bay of Poros is the anchorage for a fleet."†

Only three Cretan towns now have artificially protected harbours. In ancient days others—for example Hierápetras—

\* Στατιστική.

† *Travels and Researches*, I 143.

had them, but owing in some cases to the rising of the land and in others to silting, they are now useless and indeed unrecognisable excepting to the archæologist. Those mentioned above are Canea, Candia, and Rétimo. Only quite little vessels up to 10-ft. draught, or in Candia in summer up to 12 ft., can enter or lie in the harbours either of Canea or Candia; even the little coast steamers often have to lie outside, for in a strong northerly wind, entrance is impossible. Fortunately each of these harbours is provided with a natural alternative anchorage. From Canea a vessel caught in a gale can run for the island of Theódoro and bring up close under its north-east extreme; off Candia a vessel will find good holding even in southerly winds in the East Bay of the Island of Dhia; here, in the centre there are 14 or 16 fm. of water. In Middle Bay the depth is 38 fm. (*Sailing Directions*.)

In the harbour of Rétimo I have only seen little boats lying. Fifty years ago the *Sailing Directions* stated that only boats drawing less than four feet could lie there, and that it was getting worse and worse from sandy drift, but that there was an anchorage north-east of the town in 8 fm. Here vessels still come to an anchor.

Yachts visiting the town of Sitía will find good anchorage with shelter from northerly winds in 8 fm. one mile to the west of the town. Small boats can lie under a little mole.

It will be noticed that all these places except Poros are on the northern coast; Poros is on the eastern side of the island.

On the western coast there is only one harbour that can be called a port—and a very tiny one at that—viz: Mátala, which was once Metallon, the trading port of Gortyna. It has a narrow approach, walled with little cliffs cut through a barrier of white calcareous sand 2 by  $1\frac{1}{4}$  cables in dimensions, and has a depth of four to eight fathoms. (Spratt.)

On the southern coasts, though there are various possible anchorages in a shift, there are only three that we need notice.

The first is that of Hierápetras, which has some remains of the old Venetian harbour into which only very small sailing boats can enter; larger boats can lie at anchor outside the harbour.

The account of St. Paul's voyage has invested with more than ordinary interest the only two other southern harbours to which we need refer: they are the Fair Havens and Phoenixe.

The Fair Havens, Kaloi Limenes (commonly called "Kalous Limiones"), is a small bay or inlet. It has three possible entries: the first by the wide main approach, the second between the mainland and the islet called by the people Megalo-nísi (but marked as St. Paul's Island), and the third,



exceedingly narrow and barely practicable except for very small craft, between this islet and another. These islets lie south and south-west of the bay respectively. Inside there are 7 and 8 fathoms of "possible anchorage, but a bad swell round the point." The *S. Nikolas* anchored there without the least difficulty. There is also anchorage in ten to twenty fathoms between St. Paul's islet and a black basaltic rock that rises to a height of 36 ft. in the middle of the bay. The rock is called Mavronisi. This bay lies open to the east and south-east, but affords good shelter from westerly and northerly winds.

St. Paul's "Phoenix" (from the town of Phoenix) is now called Porto Lutró: it lies open to the south-east, but there is very snug lying in fifteen to twenty fathoms of water in northerly, westerly and south-westerly gales.





A THRESHING-FLOOR AND SLEIGH.

(See p. 287.)



## HUSBANDRY AND INDUSTRIES.

THERE are various minerals in Crete, but so far as I am aware only two, copper and iron, are worked. Copper is worked at Furnés, on the island of Gavdos (Clauda), Stomión, and probably elsewhere. The principal iron works are, I believe, near Kisámo Kastelli, but these were recently shut down as it did not pay to work them. I have not visited these works, but probably the machinery and appliances are of a primitive character: machinery indeed is practically unknown in the island, and the installation of even very commonplace steam-power would be an event as exciting for the Cretans as was the arrival of a roller for the people of a certain town in Southern Spain but a few years back; here the Mayor posted up the sensational notice: "The steam-roller may be seen in motion in front of the Town Hall on Monday next." Crete has not got nearly as far as that: the roads are not rolled at all. Ploughing is done with cattle and a wooden plough, but sometimes a cow, a donkey and a woman together pull the plough. Where the corn is thick enough it is cut with a sickle, where thin, as on many an upland field, each stalk of corn is separately plucked by the fingers. Then the harvest is taken to the threshing-floor—a circular piece of ground with a sun-baked surface. Here cattle are simply turned in to tread it out, or those who can afford it use a wooden sleigh. On the underside of this sleigh is a series of projecting flint teeth, and a man or woman stands or sits upon the sleigh which is drawn by cattle, two or three abreast, round and round and across the threshing-floor till the teeth and pressure have rubbed out the grain. Then the winnowing is done. This process takes a very long time, for it consists in throwing up the grain into the air with a wooden shovel until at last the chaff is all blown away. The common implement for digging is an adze-shaped hoe like those used by the African natives.

The Cretans tend their vines carefully, and in the best vineyards understand the use of sulphur-dusting. The wines of Crete were always celebrated: "Malmsey" of course was a Cretan wine. The best wine is found in the monasteries; Raulin remarks that this is always good, even when the wine in the country generally happens to be of poor quality. Raisins are a considerable export from the island, but by far the

greatest export trade is done in olive oil. Although an immense number of olive trees were destroyed at the time of the various risings, the area of olive-gardens relative to other crops seems to me greater than I have seen in any other country. Tournefort and Raulin who both came from an olive-country, remark on the luxuriance of these trees in Crete. Many of them are of immense age and their hollows afforded for some time a hiding-place for the Christians from the Turks; but their enemies soon came to know of this, and systematically searched every hollow tree, butchering any Christian they found concealed.

There is also a considerable exportation of the beans of the karob; the principal district for karob-trees is Mirabella. The tobacco locally used is grown on the irrigated land. Owing to the mountainous character of the country, much of the cultivation is carried on under immense difficulties. No English farmer would have the heart to attempt the undertaking. It is amazing to think of the ant-work that has built up these mountain-fields, and of the intense labour compelled by the conditions. Nowhere else in the Aegean, nor in the Mediterranean as a whole, have I noticed such extreme instances of mountain-husbandry. Up the face of a mountain, sometimes to its very summit, tier upon tier of terracing rises. Most of the terraces that thus hang clinging to the mountain-side are but a few paces wide, some but a few feet—little more than ledges fashioned from the rocky steep, filled with stony earth and curtained by a wall. Think of the water that has to be carried there, or led from the mountain spring; of hoe, sickle, seed-sack—every implement borne wearily up those heights. In the sweat of his brow indeed does the Cretan make his bread!

There are two breeds of cattle on the island: the usual animal is an undersized Irish-looking beast coloured red or black, but in the plain of Messará, where farming is on a wider scale, a larger breed is found. The sheep are white, black, or parti-coloured, the rams with small horns, and some have the pendant ears one sees in Syria. In one or two of the valleys, but only near the sea, one comes across a larger, a fat-tailed sheep. During the summer many of the flocks are pastured in the high mountains, but on the approach of winter are brought down to the lower ground. The shepherds live up in the mountains with their flocks, sleeping in a stone-built hovel in one corner of the sheep-yard ("mandri"), or in one of the little isolated huts (shown in the photograph of the Ida shepherds) which are of the smallest possible dimensions. The shepherds carry a crook and are very deft in its use; the shepherd lads use slings and make remarkably good practice with them. It is



not a little surprising to find the use of a sheep-dog not understood: one often sees a shepherd accompanied by his dog, but merely as a companion. I tried to find out how this was, but never succeeded in getting a satisfactory explanation; the idea itself seemed quite new to them. Girls often play the part taken in our country by the dog, darting with surprising agility over the rocks to turn a flock of sheep. I saw no instance of "fly," though flies and other insects greatly torment the sheep; ticks also infest them, as one discovers if one sleeps unwarily in a cave where sheep have been. Sheep's milk is largely drunk, and that also of the goats, which are very numerous in the island. In the mountains the shepherds are fond of dancing and of playing upon a stringed instrument they call a "lyra," which they make themselves: among the tunes I heard them play was one like a Scottish reel.

The dogs of Crete are a mixture of several varieties. They are generally "pariah" in appearance, but once or twice I came across a very singular kind of dog. I saw one on Nidha for instance: it was in appearance somewhere between a lurcher and a collie, had a crest of hair hyena-wise on the shoulders and neck—the rest of the body was wire-haired—and had a whip tail; they were probably survivors of the breed described by Pashley. He says: "The Cretan animals are all of one race and are peculiar to the island. They are smaller than the greyhound and have rougher and longer coats of hair; their head is somewhat like that of a wolf: they follow their game by scent and are very sagacious animals, resembling in every respect the lurcher rather than the greyhound. The Cretan breed was celebrated in times of remote antiquity: e.g. the dog of Cephalus was supposed to have been obtained by Procris from Minos." \*

Of sponge-diving, which is carried on off the north-east coast, I have not myself seen anything; it has been well described by Spratt. Sea-fishing is pursued chiefly with handlines from small open boats, and the few queer-looking fish so taken are sold in booths on the quay.

The Cretans are clever workers in iron and other metals. A great deal of silk was formerly spun and woven, and large numbers of silk-worms were kept in the country, but this industry has now greatly fallen away. A picturesque but coarse pottery has been made in certain villages from very ancient times. The purple or dark blue dye obtained from the murex which colours their cloth has long been famous.

\* *Travels in Crete*, I 33.

## THE PEOPLE OF CRETE.

It takes a long time and much study before anything like real knowledge of a people and their ways can be gained by the foreigner. I who can pretend to no intimate acquaintance either with the people of Crete or with their language, only put down here a few impressions which survive from travels in the island, in the hope that from them a reader may be able to gather some general answers to a question so often asked—"What are the Cretans like?"

Crete is commonly said to have a mixed population of Greeks and Turks. This is scarcely correct, or in its exact sense is only correct so far as religion and, in a lesser degree, language is concerned. That is not to say that there are no full-blooded Turks in the island: there are, but by far the greater number of those inhabitants who profess the Mohammedan faith, and are therefore called "Turks," are Cretan bred—descendants of Cretans who, after the wresting of the island from Venice by the Turks in the seventeenth century, abjured their Christian faith and turned Mussulmans. It is also to be remembered that, until the removal of the Turkish troops in 1898, there was constant contact between these renegades and their co-religionists the true Turks, so that the Moslem Cretan uses many words which the Christian Cretan does not understand. Otherwise, except that the former wears a red handkerchief round his head and the latter a black one, there is little difference of appearance between them. After the Turkish troops were removed, large numbers of true Turks who lived in the island left it, and now the remnant of Moslems of both kinds appear to be on fairly friendly terms with their Christian neighbours. Deep down in the heart of every Christian burns always an inherited hatred of the "Turk" that shows itself now and again in startling eruptions. "My father, my brother, my uncle, my grandfather, were all butchered by the Turks. Do I forget that?"—said Michael my mule-boy, with flaming eyes. But for all that the two work side by side now in a mutual if compulsory truce, and provided there be again no Turkish occupation this desirable state of things may well go on.

The dress of the male Cretan is singularly picturesque: it consists of black Turkish trousers, sash, blue waistcoat with



WINNOWING CORN WITH WOODEN SHOVEL.

(See p. 287.)





the back and front embroidered and kept open to show the prettily worked cotton shirt with its white sleeves, a blue jacket worn over one shoulder, and according to his faith, the black or red handkerchief wound round the head. The long sheepskin boots seem strange in a hot country, but Raulin suggests with much probability, that they are needed against the thorns.

But if there is little outward difference between the Moslem and the Christian men, there is a great difference between the women. The Mohammedan woman is dressed in black, is closely veiled and always when out-of-doors carries an open umbrella. One does not very often see them in the streets, but they seem very merry when they do get out. On a festival many of them walk the streets in an irregular procession, laughing and chattering all the way.

Although one always remembers the appearance of Cretan men, especially those splendid types that one sees in the mountains, on turning to say something about the Cretan women, one is suddenly aware that a very slight impression of them has been brought away. Even the Christian women are, from a traditional seclusion, but little seen in the streets of the towns, and though one sees many of them in the villages and in the fields, they are not very noticeable. The women of many Continental countries such as Spain, Holland, northern France, Sweden and others are so picturesque, that they remain in the memory as details of a picture. The Christian women of Crete are not particularly good-looking, though many of the mountain-women have nice kind faces, and their dress is now no more attractive than that of the peasants in England which it closely resembles. As much black is seen among the elder women in Crete as in Corsica, and possibly for the same reason. The younger women and girls sometimes loop up their dress to show a coloured petticoat: this style of female dress has come into fashion in recent years. In Tournefort's day it was very different. He says: "As for their women, we saw some very pretty ones at Girapetra; the rest are but queer Pieces: their Habit discovers no Shape, which yet is the best thing about them. This Habit is very plain: a sort of an upper Coat of a reddish Cloth, full of Plaits, hung on the shoulders by a couple of Thread-Laces: their Bosom is left quite bare. Their Head-Dress is much the same for simplicity; a white Veil which falls very becomingly over their shoulders."\*

Pashley† remarks that in his day the costume of the women in Crete had undergone some little change since the time of Tournefort, and that they then (1834) wore trousers in every

\* *Voyage into the Levant*, I 92.

† *Travels in Crete*, II 196.

part of the island. I, on the other hand, do not remember seeing any women in trousers, not even in the mountain-fields.

The Cretan country children are nice merry little creatures and pretty in their manners. Of the education as a system I know nothing, but it appears in practice to be in no way different from that of our own village schools. In the small mountain-villages it is presumable that there is little if any teaching, but when I looked into the schoolroom in the larger places the scene was exactly the same as here at home. In Vianó, for instance, an energetic schoolmaster was at work in a large and scrupulously clean room, and the general condition of the children showed that they were well looked after. They were reading simple stories from a primer, and spelling just in the way familiar here at home, and made exceedingly merry over my pronunciation of the words.

It seems a little hard that the character constantly testified against the Cretans should have been framed by a countryman of their own, but even Epimenedes of Phaestus could scarcely have realised how succeeding critics would "rub it in." Three hundred years later, Callimachus the Alexandrian repelling with scorn the Cretan belief in the death of their great "Immortal," cries in his hymn to Zeus.

κρήτες αἰὲ ψεύσονται καὶ γὰρ τάφον ὧ ἄνα, σέιο κρήτες ἐτεκτίναντο  
σὺδ' οὐ θάνατες, ἔσσι γαρ αἰεί.\*

St. Paul also was perhaps trying them rather high by the standard of a Roman citizen: they struck one as neither better nor worse than the average Levantine, while the Cretan mountaineer, a bandit held in check, has certain qualities of fearless daring that are essentially fine. On the whole I was not unfavourably impressed by the Cretans.

When my mule-boys passed any countryman on our way, they would call out "Good-day, Gossip," using the word "Kumpáre"; the modern dictionary translates this "bridesman," but it was explained to me when there that it meant "Godfather." The idea involved in this is a curious one as pointed out by Pashley.† He says that the relation of a godfather to the child's parent is one of equality in respect of the child; one is the child's natural father the other its spiritual

\* Apropos of this, Pashley, who cites it, aptly remarks: "I know not why the religious zeal of the learned writer should have taken offence at the Cretan tradition that Zeus was buried in the land of his birth. Hermes was interred at Hermopolis, Ares, in Thrace; Aphrodite in Cyprus, and the tomb of the Theban Dionysos was long shown at Delphi." *Travels in Crete*, I 216.

† *Travels in Crete*, 165 and 197.

father. The men are therefore Synteknoi, and Kumpáros is used in the same sense.\*

This salute is followed by courteous inquiries. "The ceremonious politeness, even of the poorest people in Crete, whenever they meet and address one another, is very striking. While pronouncing the first greeting the hand is usually placed on the breast, and the head and the upper part of the body are inclined forward. Maniás *never* asked a question of any peasant we met on the road, without bestowing on him the customary compliments of good wishes and an inquiry after his health."†

\* The French have an exact equivalent in *Compères*.

† Spratt. *Travels and Researches*, I 82.



## THE TRAVELLER IN CRETE.

If those who pay a flying visit from Athens to see the excavations of Knossos will but spend a fortnight in seeing something of the country itself, I will answer for it that they will not be disappointed. The hotel in Canea, as that in Candia, though primitive, is quite possible for a short stay. A really good hotel is badly wanted, and would bring many visitors to the island ; but the chief need is for good roads. With the exception of a few miles round Canea, Candia, Hierápetras, and Rétimo, there are no carriage roads in Crete, and these few are very bad. Here and there are the remains of the paved roads of the Venetians, but the boulders of which their surface is formed make trotting over them all but impossible for a carriage ; it is worse, because more sustained, than the worst shaking in a Norwegian cariole, while the modern roads are deep in mud in a time of rain, and in dust in the hot months. Having said this at the beginning of our story, we have brought out the worst features of the island from the point of view both of the fastidious or the unenterprising visitor. He who is only happy faring softly need not go to Crete : those who have vigour left for simple ways will like it all the better for its roughness, and will treasure the days in Crete, in the saddle or on foot, among their happiest memories. No, the roads generally of Crete are only mule-tracks over the rocks ; all the land-traffic of the country in building-material, wine, oil, fruit, pottery or what not, has to be done on the backs of horses, mules or donkeys.

From the point of view also of commercial progress roads are badly needed in Crete, for, Hierápetras excepted, all the important ports are on the north coast of the island ; much of the produce therefore cannot be brought to them, but must be collected at certain points along the western and southern coasts. But the Libyan sea is often very boisterous, and great winds sweep down from the mountains, so that the little trading-vessels cannot always venture their boats to take off this merchandise from the dangerous shore. The trade of the country, then, is terribly hampered by want of roads.

The poorest peasant in Crete seems to possess an ass. One constantly sees trains of these donkeys, a skin full of oil hanging on either side of one, wine on another, charcoal and oranges



on a third, pottery on a fourth, while living lambs, kids or poultry are carried in the same way. Sometimes the load quite conceals the donkey : one is a walking cornstack, while another is only betrayed by its bray beneath a towering load of scrub for fuel.

The better-to-do natives have mules or occasionally ponies. The adroitness of the animals in traversing the mountain tracks was to me a study of constant interest. Were they shod as we shoe them, their feet would get bruised by the rocks. The sole of the foot, including the frog, is therefore covered (as in Spain and elsewhere) with a metal plate, and only a small hole is left for ventilation. One might suppose that such a device, by destroying the sensation of the hoof, would lessen the animals' dexterity, but this does not seem to be the case. Far from it : in order to insure a foothold they take advantage of the smallest irregularity in the polished and slippery surface of the rock. One often sees a hole in the rock just the size and shape of a mule's foot. Originally merely a little natural crevice, every mule during the ages has made use of it until it has been worn into its present form. You will see each mule in a long train of these animals place its foot precisely in this hole. Of course, no beast of burden from a flat country could traverse these precipitous tracks, and there are a few in this island which even a Cretan mule cannot attempt. One would not dream, for instance, of trying to take a mule to the top of Ida, and though we did succeed in bringing our horses up the "staircase" of the terrific gorge of Samaria, I should never have dreamt of attempting to take them down. Pashley went all round by Lakkos (miles out of his way) in order to avoid this gorge. He says : "The people all doubted whether a horse like mine would be able to pass one part of the road called Xyloskalo (the wooden staircase) with safety ; agreeing that the *probabilities* were that he would miss his footing and be dashed to pieces."\* And again : "Wishing much to enter Sphakia by Xyloskalo I again made enquiries, and am assured by the villagers that even mules ought to be habituated to such a road in order to be depended on. Not long since a Lakiote went with his mule for the first time ; the poor beast started back on seeing the precipice and, losing its footing, was precipitated to the bottom."†

Travelling in Crete, then, must be done either on foot or on horses or mules ; and in any case some beast, if only a donkey, must be employed to carry things. Raulin remarks : "For a stranger who does not know modern Greek there are two ways of travelling in Crete ; *en grand seigneur*, with a dragoman and some servants, and beasts of burden to carry those things needed

\* *Travels in Crete*, II 148.

† *Ib.*, p. 157.

every evening, and to get fresh provisions as much for himself as for the hosts with whom he stays, or absolutely as a modest naturalist with a servant to interpret, and one or two beasts for necessary baggage. My simple tastes and my custom of preferring to anything else when travelling the chance of taking pot-luck, urged me to travel modestly; my choice was never in doubt for a moment. If sometimes snails, as at the rich convent of Goniá, or a little milk or cheese in the homes of the poor villagers, have made, with some biscuit of uncleaned barley, all the outlay on my dinner, and sometimes not even that for breakfast, I have seldom had to regret the part I had taken; that which gives me more satisfaction than anything else is that my health has in no way had to suffer from the exceeding frugality.”\*

My own tastes are those of Raulin: I travelled in the same way. The tent I took on my first journey I thereafter left behind: it was heavy and quite unnecessary, and if I sometimes wished I had it when the wind scattered my papers about, a quiet place could always be found, with a little trouble, behind a rock or a tree. A sleeping-bag is quite sufficient even on the wind-swept sides of Ida by the snow.

A couple of horses or mules will carry all the traveller requires, and as they can only move in the mountains at a walking pace he may ride or not, as he chooses. Two animals and the services of a mule-boy can be had quite cheaply; the boy is supposed to find his own food and the fodder for his animals.

There are in each of the towns men who let out mules and horses and supply the muleteer; my own experience is that these men or boys are often unsatisfactory fellows, and that it is far better to engage one's own men independently, and to secure if possible a genuine countryman.

In spite of the constant use of pack-animals and their cleverness in securing pottery and country produce on an animal's back, it was quite exceptional to find a man who could rope up a new form of load really well: I always had to see to this myself. A Cretan saddle is made of staves of wood, and is difficult to describe. There are four projecting pieces round which the ropes of the loads are passed and hauled tight.

Away in the mountains the traveller may occasionally be successful in persuading a villager to take him in, but I should not myself care to try the experiment. Indeed, as a rule, I did not find the natives inclined to be hospitable, though I only asked for food and not for lodging; had I tried, my experience would, I think, have been that of Raulin who records of a certain village: “The men were not yet returned from

\* *Description Physique de l'Ile de Crète*, I 94.



work in the fields, and the women did not want to receive me, hoping thus to make me leave the valley. When they saw me determined to remain, and installed in a garden at the foot of a tree they thought better of it, and began to offer to give me food and also a lodging as soon as the men came back. I refused with disdain, and passed under the lovely stars as excellent a night as the one before. Testa (his man) was more fearful, for by day he carried in his girdle one of two large pistols, and at night placed them under him by way of a feather bed."\* Testa's case was not peculiar; although there is now but little brigandage in Crete there has been a good deal of lawlessness, especially on the part of the Sphakiots or inhabitants of the mountainous district called Sphakiá, and I found more than one of my mule-boys very timorous of sleeping in the open air. According to my man Demetrio, the shepherds of Ida also have a bad reputation, while the village of Anoya is proverbial for the ill-behaviour of its people. Personally I who slept so much out-of-doors suffered in no way, but a friend who lodged in houses was five times subjected to petty pilfering and was shot at once.

Once the spring storms are past the climate of Crete is so delightful that one only needs, as said before, a ground-sheet and a sleeping-bag for comfort in the mountains; lying out thus, looking up into the stars, one feels that one would not exchange one's bed or its roofing for the best that civilization could provide. If then the traveller will do the same, and will take in addition his clothes-bag and some food, he will have everything essential to comfort. A collecting naturalist takes other things—presses for plants, traps, gun, cartridges, instruments, note-books, etc., and these things mount up; yet a couple of horses can carry all. At the same time there is of course no reason why a tent should not be taken, though in the rocky mountains it is difficult to make one secure, and usually impossible to find a sufficient space of level ground. A tent, of course, also means another horse. There are no mosquitoes in the mountains and very few in the plains, at any rate until the end of June.

I do not advise others to do as I did in the matter of food. Beyond coffee, a tin or two of sardines, and a few tins of bully-beef to fall back on at a pinch, I carried, after my first journey, no food. I ate very little on my journeys, and made up for it when I returned to the towns. A very hard black bread which the natives carry in their girdles and soak in a spring before eating, olives (the black oily sort), fresh mulberries, sometimes a bit of cheese and some sheep's milk, usually sufficed for my

\* Op. cit., I 108.

own wants ; but I do not know that it is good to do the hard mountain-work on so little. I should strongly advise the traveller to take from England really good compressed food, vegetables and soups.

It is of course not everyone who cares to travel in a rough way : a wandering naturalist must go far afield ; but, as explained elsewhere, many of the most interesting things in the island may be seen in a day's journey from one of the four towns Canea, Candia, Rétimo, and Sitia. Many journeys, again, may be planned so as to fit in a monastery for the night's lodging. The monks are hospitable—entertainment for the wayfarer is part of their profession—and the traveller on his side will be grateful for their courtesy and kindness, and will not forget to leave behind him fair equivalent, in a present to the coffer of the brotherhood. He will further find some of his kindest friends among the men of the Civil Guard : with credentials from their Commandant, he will be sure of a welcome at their stations and of the best in the way of food and lodging that these good fellows can provide.

FINIS.



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Printed by WITHERBY & CO.  
at their Printing Press in  
Middle Row Place, London

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